FIRE AND SECURITY

AutroOS

Monitoring and Control System

Operator's Handbook

Protecting life, environment and property...

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Table of Contents

1. Introduction 7
- 1.1 The Product 7
- 1.2 About the Handbook 7
- 1.3 The Reader 7
- 1.4 System requirements 7
- 1.5 Reference Documentation 8

2. Access Control System 9
- 2.1 The Access System 9

3. CCTV Flame Detection System 10
- 3.1 CCTV System Functions 10
- 3.2 Using the CCTV System 11
  - 3.2.1 How to activate the CCTV system from the detector page 11
  - 3.2.2 The Automatic CCTV Popup 11
  - 3.2.3 Using the CCTV image 12

4. Equipment System 14
- 4.1 Alarm indications 14
- 4.2 User interface 14
  - 4.2.1 Tabs with information columns and -cells 14
  - 4.2.2 Toolbar 14
  - 4.2.3 Context menus 14
  - 4.2.4 Context menus for all tabs, except Net Status tab 14
  - 4.2.5 Context menu for Net Status tab 15
  - 4.2.6 System Status tab 16
  - 4.2.7 Net Status tab 16
- 4.3 Using Station status images 17
  - 4.3.1 Viewing Station status images 17
  - 4.3.2 Updating statistics 18

5. Event System 19
- 5.1 Events system main features 19
- 5.2 Event attributes 20
- 5.3 Event types 21
- 5.4 Alarm acknowledgement 22
  - 5.4.1 Acknowledgment authority 22
  - 5.4.2 Acknowledging methods 22
  - 5.4.3 Selection of alarms for acknowledgement 23
- 5.5 Displaying alarms 24
- 5.6 List presentation 24
  - 5.6.1 Dynamic alarm page 24
  - 5.6.2 Static alarm page 25
  - 5.6.3 Historic event page 25

5.7 Dynamic alarm presentation 25
5.7.1 (Alarm state changes) 25
5.8 Last alarm line 26
5.9 Event images 26
5.9.1 Named Event images 26
5.9.2 Display of Event images 26
5.9.3 Title bar 26
5.9.4 Event image tabs 27
5.10 Status line 27
5.10.1 Dynamic and static alarm pages 27
5.10.2 Historic event page 27
5.11 Event toolbar 28
5.12 Dynamic and static alarm pages 28
5.13 Selecting items in alarm pages 29
5.14 Historic event page 30
5.15 ODBC data source name (for the event database) 30
5.16 Event popup window 31
5.17 Viewing and acknowledging alarms 31
5.17.1 Viewing alarms 31
5.17.2 Last alarm line 31
5.17.3 Event image 32
5.18 Defining time span 33

6. Operator Station 34

6.1 User interface 34
6.2 Title bar 35
6.3 Main menu 35
6.4 Toolbars 35
6.4.1 Primary image window toolbar 36
6.4.2 Secondary and floating image window toolbars 36
6.5 Last alarm line 36
6.6 Main view area 37
6.7 Status bar 37
6.8 Image management 37
6.9 Image types 37
6.10 Image window types 38
6.10.1 Primary image window 38
6.10.2 Secondary image window 39
6.10.3 Floating image window 39
6.10.4 Restrictions 39
6.10.5 Navigation between image windows 39
6.11 Desktop area for image windows 40
6.12 Image navigation 41
6.13 Navigator 41
6.13.1 Tree view 42
6.13.2 List view 42
6.13.3 Navigator configurations 43
6.13.4 History navigator 43
6.14 Hotspots 44
6.14.1 Functionality 44
6.14.2 Appearance 44
6.14.3 Activation 44
6.15 Signature commands 45
6.15.1 Area of use 45
6.15.2 Syntax 45
6.15.3 Types 46

6.16 Popup function signature commands 47
6.16.1 CreatePopup 47
6.16.2 ShowPopup 48
6.16.3 HidePopup 49
6.16.4 DestroyPopup 49
6.17 System modes 50
6.18 Message Manager 50
6.18.1 Messages - types and handling 50
6.19 Using the Operator Station 51
6.20 Startup and logon/logoff 51
6.21 Startup 51
6.22 Logging on, logging off and changing user 51
6.22.1 Logging on 51
6.22.2 Logging off 52
6.22.3 Changing user 52
6.23 Images and image windows 52
6.24 Creating floating image windows 52
6.24.1 Procedure 53
6.25 Using operator interaction devices 53
6.25.1 Operating modules 53
6.25.2 Images - navigation and viewing 53
6.25.3 Command control 54
6.25.4 Alarms 54
6.25.5 Keyboard functions 54
6.25.6 Keyboard 54

7. Process images 55

7.1 Process image features 55
7.2 Process Pictures 56
7.2.1 Overview Image 57
7.2.2 Part overview image 57
7.2.3 Detector Image 58
7.2.4 Maintenance Image 58
7.2.5 Output Image 59
7.3 Normal plant operation 60
7.4 Picture jump 60
7.4.1 Automatic Display Navigation 60
7.4.2 Automatic Alarm on Alarm 61
7.4.3 Automatic Navigation on Fault 61
7.5 Implementation of Process images 62
7.5.1 Adding a hotspot to a Process image 62

8. Report system 63

8.1 Description (Require Crystal Report Designer) 63
8.2 Report mechanism 63
8.2.1 Overview 63
8.2.2 Prepared reports and generated reports 64
8.2.3 Triggering report generation 64
8.2.4 Report management 65
8.2.5 Displaying reports 65
8.2.6 Report print-out 65
8.2.7 Report storage 65
8.2.8 Report mail 66
8.3 Using the report system 66
8.3.1 Generating interactive reports 66
8.3.2 Interactive report types 67
8.3.3 Setting reporting period - fixed time span 72

8.3.4 Report popup window 73
8.3.5 Report title 73
8.3.6 Report popup window toolbar 74
8.3.7 Sending a report as a mail attachment 75

9. Trend System 76

9.1 Trends 76
9.1.1 Trend presentations 76
9.1.2 Trend types 77
9.1.3 Trend data sources 77
9.1.4 Dynamic and static modes 77
9.1.5 Trend main features and functions 78
9.2 User interface 78
9.2.1 Toolbar 78
9.2.2 Trend specific command on the main menu 78
9.2.3 Context menus 79
9.3 Axis controls 79
9.3.1 Time Trends 80
9.3.2 XY Trends 80
9.3.3 Trend image 81
9.3.4 Scroll Bars 81
9.4 Curve focus 82
9.5 Measurement ruler 83
9.6 Multiple-curve trends 83
9.7 Property dialog boxes 84
9.8 Time Trend 84
9.9 XY Trend 85
9.10 Trend Pop-up 85

10. Web images 87

10.1 Main features 87
10.2 User interface 87
10.2.1 Main menu and standard toolbar 87
10.2.2 Toolbar 87
10.2.3 Context menus 88
10.2.4 Status bar 88
10.3 Using the Web Images 88
10.3.1 Viewing Internet/intranet web sites 88

11. Reference information 89

11.1 Access Control System 89
11.1.1 Logon dialog box 89
11.1.2 Log Off … command 90
11.1.3 Exit 90
11.2 CCTV Flame Detectors 91
11.2.1 Ethernet Video 91
11.2.2 Video Overlay 92
11.2.3 Video Pop-up 93
11.3 Equipment System 94
11.3.1 Print Image command 94
11.3.2 Show Only Errors command 94
11.3.3 System Events... command 94
11.3.4 Update Statistics command 95
11.4 Event System 95
11.4.1 Acknowledge command 95
11.4.2 Date and Time dialog box 96

11.4.3 Delete command 96
11.4.4 Event DAOStor dialog box 97
11.4.5 Select all command 98
11.5 Operator Station 99
11.5.1 About AutroOs... command 99
11.5.2 Add ▶Hotspot... command 99
11.5.3 Command groups dialog box 100
11.5.4 Historical Navigation Arrow Buttons 101
11.5.5 History Navigator dialog box 101
11.5.6 History command 102
11.5.7 Hotspot Manager Editor dialog box 103
11.5.8 Logical Color Table dialog box 105
11.5.9 Message Manager dialog box 107
11.5.10 Message Manager... command 108
11.5.11 Navigator command 108
11.5.12 Navigator dialog box 109
11.5.13 Palette ▶command 109
11.5.14 Select Time Zone... command 110
11.5.15 Set Time dialog box 110
11.5.16 Set Timezone dialog box 111
11.5.17 Standard and command control toolbar buttons 111
11.5.18 Status command 113
11.5.19 Symbol position dialog box 113
11.5.20 Tag Position dialog box 114
11.5.21 Text position dialog box 115
11.5.22 Text string dialog box 116
11.6 Process Images 117
11.6.1 Process Image dialog box 117
11.6.2 Open dialog box 118
11.7 Report System 119
11.7.1 Export dialog box 119
11.7.2 File Output Description dialog box 121
11.7.3 Interactive Report page 122
11.7.4 Historic Report page 123
11.7.5 OS Configuration > Report System... command 124
11.7.6 Print Output Description dialog box 124
11.7.7 Report Manager dialog box 125
11.7.8 Report System... command 125
11.7.9 Select time periode for the report dialogue box. 126
11.8 Trend System 127
11.8.1 AutroOs Page Setup dialog box 127
11.8.2 Axis Controls command 128
11.8.3 Cut, Copy and Paste Curve commands 128
11.8.4 Layout Mode command 129
11.8.5 Make Popup command 129
11.8.6 MinMeanMax command 130
11.8.7 New Curve... command 130
11.8.8 Print... command 130
11.8.9 Properties... command 131
11.8.10 Static command 131
11.8.11 Time Trend Properties dialog box 132
11.8.12 XY Trend Properties dialog box 136
11.8.13 Axis Scale page 137
11.8.14 Curve Attributes page - time trends 138
11.8.15 Axis parameter page 139
11.8.16 Trend Attributes dialog box 140
11.8.17 Dynamic Time Span page 141
11.8.18 Static TimeSpan Page 142
11.8.19 Axis divisions page 143
11.8.20 Curve attributes page - XY trends 145
11.9 Web Images 146

11.9.1 Image Attributes dialog box 146
11.9.2 Image Properties... command 146
11.9.3 Next command 146
11.9.4 Previous command 147
11.9.5 Refresh command 147
11.9.6 Stop command 147

12. Glossary 149

13. Reader's Comments 153

1. Introduction

1.1 The Product

The AutroOS system is a networked, flexible and scalable control and monitoring system for AutroSafe systems.

AutroOS has a graphical user interface that provides *status* and *alarm* information, and gives the operator access to all major functions in AutroSafe.

AutroOS runs on standard Windows NT workstations.

1.2 About the Handbook

This handbook is intended to provide all necessary information for the operation of the AutroOS.
At the end of this book, there is a glossary explaining most of the relevant terms used in this User Guide.

Note In addition to this handbook there is an electronical help file available.

1.3 The Reader

The handbook is intended to be used by technical personnel who are responsible for the operation of the AutroOS.

1.4 System requirements

Standard or Industrial PC	Minimum requirements Pentium 4, 2 GHz. 256 Mbyte RAM 40 Gbyte Hard disk 17” Monitor CRT or TTF Ethernet network card
Operating system	Windows NT 4.0, Service Pack 6a
Connection to Autrosafe	Ethernet

1.5 Reference Documentation

Handbook	Item number	Filename
Datasheet	116-P-AUTROOS/CE	autroos_ce
Configuration Handbook	116-P-AUTROOS/YE	autroos_ye
Installation and Commissioning Handbook	116-P-AUTROOS/DE	autroos_de

2. Access Control System

This section contains conceptual description of the access system.

2.1 The Access System

The access system provides a security mechanism to control:

- User accounts: I.e. whether a user can log on the application
- User rights: I.e. what kind of functionality is available for each user.

The concept builds on a few principles:

- A user account is identified by a user name and password combination.
- Every user account belongs to a user group.
- A specific set of user rights that represent a distinct functionality, is associated with each user group.

The access system provides the built-in user account 'Administrator' that is member of the built-in user group 'System'. Neither can be deleted.

All users use the access system as they log on and off.
All configuration tasks, such as adding, editing or deleting user accounts and user groups are the responsibility of the system administrator.

3. CCTV Flame Detection System

The CCTV (Closed Curcuit Tele Vision) system receives live video signals from the detector cameras, and display the video picture on the AutroOs screen.

An alarm situation detected by the cameras trigger both video recording and video display. By using the two AutroOs screens, two alarms can be handled simultaneously by the system. The operator will in all cases be able to override the system settings by manually switching.

The CCTV system consists of three distinct software components.

- Autronica CCTV popup - executable with video display.
- Autronica third party CCTV - component for controlling the CCTV popup.
- Autronica video server - central component for switching video channels.

3.1 CCTV System Functions

- Automatic popup

In case of an fire alarm from a flame detector with integrated camera, the video module will automatic popup and display live video pictures.

- Manuel operation

From the videopage the CCTV system can be operated manually. Live video can also be operated from the prosess images.

- Video Overlay.

Video overlay is a system for displaying detected flames or "hot areas" in the video pictures. The video overlay can be activated and deactivated by push buttons.

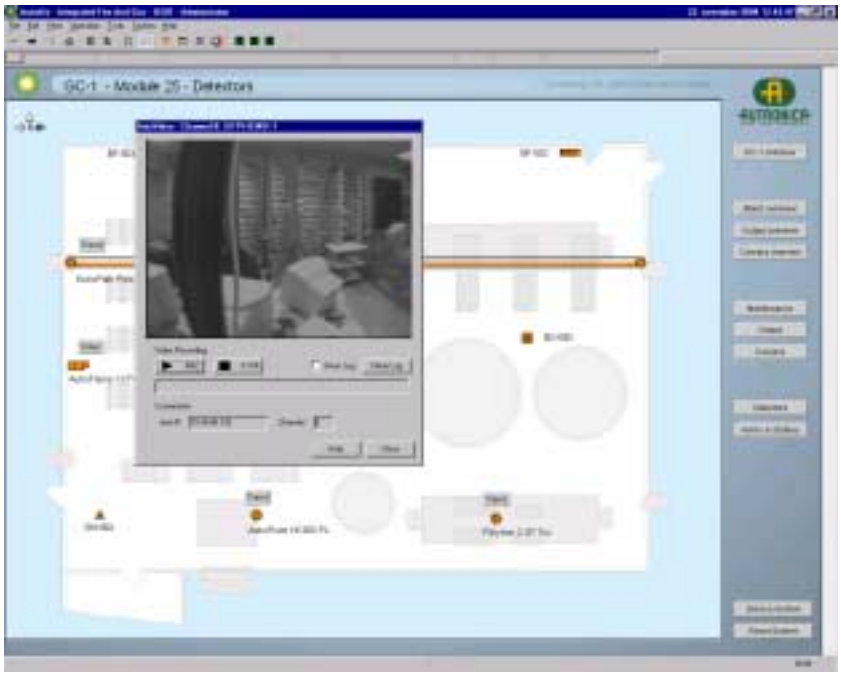
- Record

Video signals are recorded at the hard disk. The recording of video images starts automatically when a fire is detected by the flame detectors. Video signals can also be recorded manually.

3.2 Using the CCTV System

3.2.1 How to activate the CCTV system from the detector page

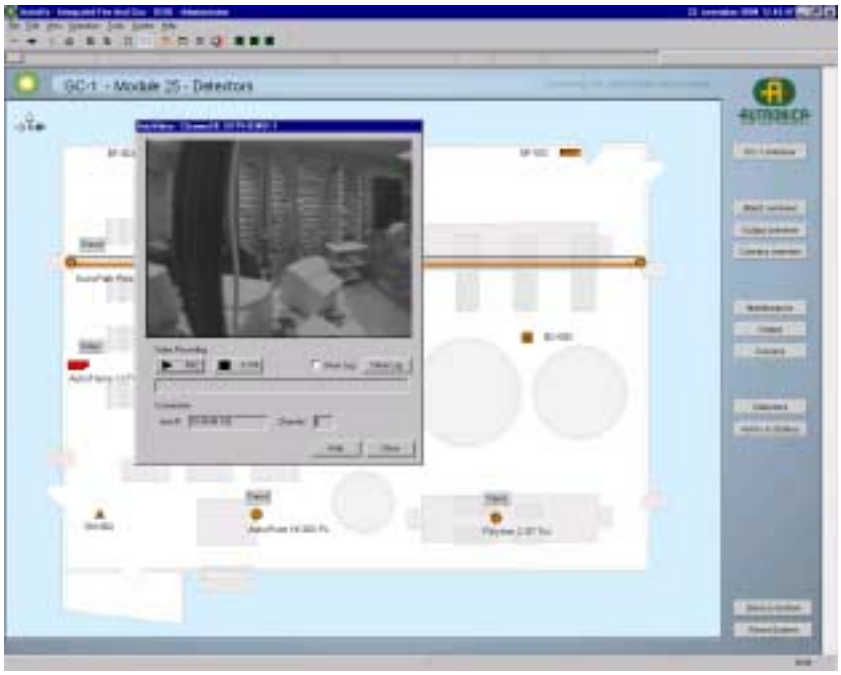
To activate the CCTV system from the detector page press the video icon next to the detector. The live camera image will appear in a pop-up window. To close the video pop-up press the close window button.



3.2.2 The Automatic CCTV Popup

If a fire is detected by the flame detector cameras, live images from the cameras will pop-up in a pop-up window in the alarm image.

In a situation with several fire alarms from the flame detector camereas, the first alarm will pop-up on the first AutroOS station and the second alarm will pop-up on the second AutroOs station. The next alarm detected by the flame detector cameras will not bring up any pop-up windows with live video images.



3.2.3 Using the CCTV image

On the CCTV image select the camera you want to display by pressing the camera button. The live camera image will be shown in a popup window. This page will show you analogue video.

The Video Overlay (ref.)can be activated/deactivated by pressing the ON/OFF key for the corsponding camera.

Fuctionality in VideoPopup

REC:Starts recording of video signals to the harddisk.
STOP:Stops recording of video signals to the harddisk.
HIDE:Hides the popup video window
CLOSE:Terminates the video window.

4. Equipment System

This section provides descriptions of each of the tabs that the System status images are divided into, and guidelines for the usage of Station status images. The user interface and other features are also described.

4.1 Alarm indications

If the tag in the station field looses connection to the OS the background of the field concerned will change colour to steady red.

4.2 User interface

4.2.1 Tabs with information columns and -cells

The information provided in the Station status images is presented in different tabs, which are organized into columns and cells.
At the bottom of the screen, all the tabs of this image are available for selection. To select another tab for display in the main view area, click the appropriate tab.

In OS configuration mode, the cells and columns of all the tabs, except for the **Net Status** tab, are editable with respect to appearance and utilities. You cannot, however, edit the information contents of the cells.

4.2.2 Toolbar

The equipment image toolbar comprises of **standard and command control buttons** (ref. 11.5.17), which are described in the Operator Station section.

4.2.3 Context menus

Various context menus are provided dependent of which tab and station type that is selected. These are described below.

4.2.4 Context menus for all tabs, except Net Status tab

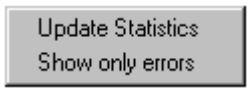
Normal operation
In normal operation, dedicated context menus are provided when you have selected an AutroSafe panel.

System Status context menu.
The context menu below is displayed when you have selected a System Status from the list in any of the appropriate tabs.

OS configuration mode
In OS configuration mode, all the tabs, except the **Net Status** tab, are provided with a context menu that enables you to edit the appearance of the information columns. These are Microsoft Excel™ spread sheet commands, which are not described in this user guide. The commands on the context menus for normal operation are also contained on this context menu *(ref. AutroOs Configuration Guide*).

4.2.5 Context menu for Net Status tab

During normal operation, and in OS configuration mode, the **Net Status** tab is provided with a dedicated context menu.



4.2.6 System Status tab

The **System Status** tab shows the current status of all units defined in the system.

The columns of this tab are described in the following table:

Heading	Description	Possible Values	Alarm Indication
Station	Identification of the unit	All AutroOS and AutroSafe and DB servers defined in a system. Abbreviation OS, DB and AS is used with an increasing number.	Indicates the highest priority "system" alarm
Identifier	Unique number identifing the unit	OS - 100 and upwards, DB - 1000 and upwards VideoServer – 1300and upwards Axisbox – 1400 and upwards Autrosafe - 1500 and upwards.	None
Alive	Indicates the state of the unit	*OK* - Alive and comunicate Not Reported - Communication lost	None
Last reported	Shows the status of devices connected to serial lines	*OK* - No errors reported *ERROR* - errors reported	Indicates the highest priority "process" alarm
SW Version	The accumulated uptime of the station	Number followed by character indicating period. For example, 3.06 d indicates 3.06 days (h=hours, d=days, y=years)	None

4.2.7 Net Status tab

The **Net Status** tab shows the status of the communication network for all OS and DbServers in the system.

This sheet contains a window that is divided into two panes.

The **left-hand pane** lists all stations in the communication network by means of icons and abbreviated names (OS and DB). Clicking any icon or name displays the status of the communication network, as seen from the corresponding station, in the right-hand pane.
A red A, B or AB on the icon, indicates that its station has a network communication error on net A, B or both.

The **right-hand pane** is a static and once information has been displayed it is not updated. It is divided into seven columns that provide the information described in the following table:

Heading	Description	Possible Values
Sending Station	Identification of the OS or DB Server	All stations defined in the system. It is visible even when communication is lost with the station.
Msg pr. 100 sec	Total number of messages being received every 100 seconds on both networks.	Number
Lost Msg Net A	Number of lost messages on network A.	Number
Lost Msg Net B	Number of lost messages on network B.	Number
IpAddress	The Internet Protocol (IP) address for the station	IP address (dotted decimal)

The information displayed in the right-hand pane can be sorted according to the contents of each column by clicking it header text This sorting operates in similar way to that in Windows NT Explorer, i.e. highest to lowest or lowest to highest either alphabetically (if text) or numerically (if numerical values).

4.3 Using Station status images

This section contains guidelines for the usage of Station status images.

4.3.1 Viewing Station status images

Procedure
To view Station status images, perform as follows:

1. Either:

   a. On the toolbar, click the **Station Status** button . The system default Station status image is displayed in the currently selected image window.
   or

b. If the navigator in the currently selected image window is configured with a Station status image, click this image. The image is displayed, provided that no other Station status image is displayed in another image window of your OS.

2. If a Station status image already is displayed on your OS, an error message is issued. Select another image in the image window. Also select another image of another type in the image window currently displaying the Station status image. Select the appropriate Station status image in the image window you wish.

4.3.2 Updating statistics

To update statistical information displayed in the **Net Status** tab, proceed as follows:

1. Ensure that the **Net Status** tab is displayed.
2. In the leftmost pane, select the appropriate station. Display the context menu and select the **Update Statistics** command (ref. 11.3.4).
3. The statistical information for the selected AutroOS station is now updated in the pane to the right.

5. Event System

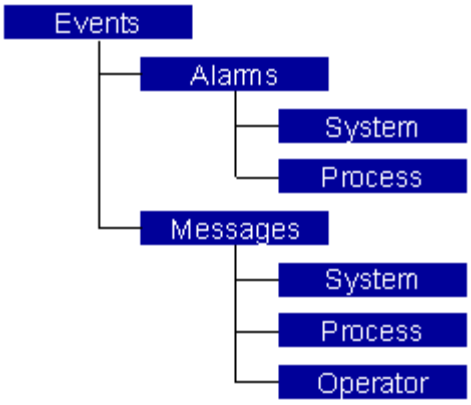
This section contains descriptions of the event system main features and functions. This section do also provides procedures for how to use the Event system.

To fully understand all of the event system description, you should have a good understanding of the module and the distributed control system concepts.

5.1 Events system main features

An event is a notification to the operator of some condition in the system or the controlled process that may need attention. Which events are to be notified to the operator, depends on what kind of image is displayed and which filter is selected.

Events are classified as illustrated:



The Event Server in AutroOS maintains a list of all alarms. Dynamic and static images allow the user to look up the list and control the selection of what is displayed by means of 'filters'. System defined filters are associated with each image, but the user can specify filters that suit specific needs.

The AutroOS event database logs all events continuously. The difference is important: the event database *logs* while the Event Server *maintains*. The event database is the source for historic images.

The event system provides several notification and presentation alternatives:

- Alarm line
- Event image and event pop up
- Audible alarm
- Alarm indication by means of color coding and flashing effect in the graphic presentation of modules in process images.

5.2 Event attributes

Systematic handling and notification and presentation of events requires all events to be specified by means of a set of attributes. Relevant event attributes are:

Type	Categorizing of events according to their cause.
Time	The time the reported condition occurred.
Description	A descriptive text.
Tag	Tag denote the source of process events. The fields are also used in case of system events.
Reason	More information about the event
State	Shows the state of the event
Fault Data	Shows the fault data form the AutroSafe. Its code is usefull for Autronica R&D Department.

5.3 Event types

Events are categorized as follow:

Event type	Cause
Process Alarm	Violation of a defined alarm limit for a process value.
System Alarm	An undesirable condition that is not related to the process. The 'station availability' alarms are a subset of the system alarms. They deal with conditions like communication errors in the network.
Process Message	A condition related to the process but not classified as a process alarm.
System Message	A condition not related to the process but not classified as a system alarm.
Operation Message	An operator intervention.

The exact event type names, used in event and alarm lists, are not necessarily identical to those used in the table above. The name associated with each event type is set in the Global/Event System/EventView configuration parameter group *'Type Names'* in the SysConf database.

5.4 Alarm acknowledgement

Whether an alarm needs acknowledgement depends on its priority level. The priority level that marks the limit is set in the Global/Event System configuration parameter: *'AckLimit'*. All events with a priority level at or above the *'AckLimit'* need to be acknowledged. There is one exception: At OS start-up, the 'station availability' alarms caused by missing response from some station do not require acknowledgement.

Acknowledgeable alarms must be acknowledged explicitly by the operator. Acknowledgeable alarms become unacknowledged upon major alarm changes.

The possible acknowledge states are 'Acknowledged' and 'Unacknowledged'.

5.4.1 Acknowledgment authority

The authority to acknowledge alarms is built on command control and access system configuration:

- An OS can only acknowledge those process alarms that are originated by the modules controlled by that OS. This authority is exclusive: Process alarm can not be acknowledged from an OS that does not control the source module.
- An OS can acknowledge system alarms originated by itself or by controlled Autrosafe. An Autrosafe is controlled by the OS when it contains a module under a command group that is controlled by the OS in question.

5.4.2 Acknowledging methods

Alarms can be acknowledged:

- Using the **Acknowledge** command in the **Operation** menu.
- Using the **Ack** option in the context menu of the dynamic and static alarm list and the last alarm line.
- Using the in the event image or event dialog toolbar.

5.4.3 Selection of alarms for acknowledgement

The authority to acknowledge alarms from the OS in question is indicated in the left most column of the alarm view (ref. 5.5.).

The effect of these actions depends on whether unacknowledged alarms are selected:

- When one or several unacknowledged alarms are selected, the acknowledge action applies to selected alarms only.
- When no selection is made, the acknowledge action depends on the settings of the SysConf Global/Event System/EventView parameter 'AckAllVisibleIfNoneSelected':
- If 'AckAllVisibleIfNoneSelected' is true, all unacknowledged alarms in the current alarm page are acknowledged.
- If 'AckAllVisibleIfNoneSelected' is false, none of the unacknowledged alarms are acknowledged.

5.5 Displaying alarms

There are several presentation alternatives for displaying alarms on the OS. Each of these alternatives filters the list in order to adapt the selection of alarms to be displayed.

The tabular presentation alternatives are:

- **Alarm line**: A fixed area in the primary image window that is always visible, displaying the last unacknowledged alarm.
- **List image**: A listing of alarms within the image pane of any OS image window. Dynamic and static alarm lists can be selected. The historic event page is just a log of events.
- **Pop up**: A listing of alarms, similar to the alarm image, but in a free floating and resizable window. Visible when event dialog is selected. Dynamic and static alarm lists and the historical event list can be selected.

The display format is similar to a worksheet and identical for all presentation alternatives. The actual layout (column order, width, etc...) is a matter of OS configuration but by default, the worksheet contains one column per alarm attribute.

	Time	Tag	Reason	Description	State	Type	Fault Data
*	8:13:46 PM 10/18/01	DACG-03451-3		Gas in Process Area	Inhibit	ProcessAlarm	
*	8:13:26 PM 10/18/01	DACG-03451-5	Point: Obscuration	Gas in Process Area	Fault	ProcessAlarm	F:1285 L:2791;
	8:12:59 PM 10/18/01	MFS-03451-4		MFS in IER	Alarm	ProcessAlarm	
	8:12:58 PM 10/18/01	MFS-03451-3		MFS in IER	Alarm	ProcessAlarm	
	8:09:21 PM 10/18/01	DFTV-03451-6		CCTV Flame in Process Area	Alarm	ProcessAlarm	

In addition to the tabular presentations, alarm indication is included in process images.

5.6 List presentation

There are three alternative list presentations:

- Dynamic page
- Static page
- Historic page

The dynamic and static pages are view-ports along the imaginary list of alarms in the system.
The historic page is a view-port in the event log.

5.6.1 Dynamic alarm page

The dynamic alarm page is a view-port that moves automatically along the list of alarms in step with the most recent alarm in the system. The dynamic alarm page has a limited length: As the list is filled up, the oldest alarms are pushed out while the most recent ones are added to the top of the list. If implicit deletion (ref. 11.4.3) is set, rows in the dynamic page are blanked, as the alarms in the list are acknowledged and return to the normal state.

Consult the dynamic alarm page to get a survey of the current alarm situation.

5.6.2 Static alarm page

The static alarm page is a view-port that can be moved by the user along the entire list of alarms. The static alarm page is updated as major changes occur to alarms in the page. However, new alarms are not added. If implicit deletion (ref. 11.4.3) is set, the static page is emptied as the alarms in the list are acknowledged and return to the normal state.

Consult the static alarm page when you want a more exhaustive but less flickering picture for the alarms in question. As the dynamic page is filled up, the time span covered by the static page is older than the one in the dynamic page.

5.6.3 Historic event page

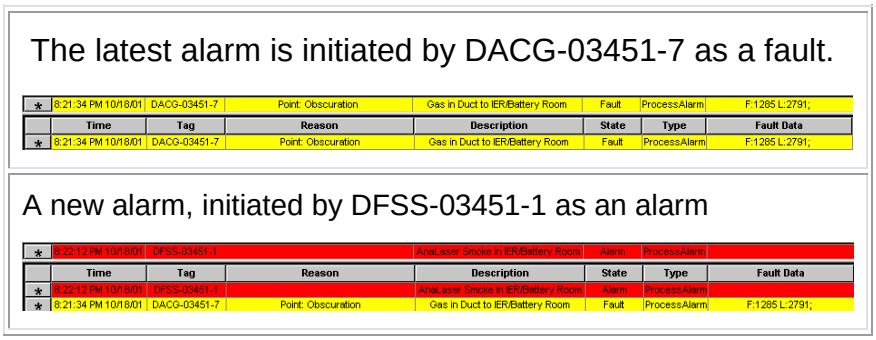
The historic event page is a view-port along the event log. I.e. it is a pure log of all events that occur. While an alarm can appear only once in the dynamic and static page, it appears as many times in the historic event page as there are changes in its state.

Use the Historic event page whenever you need to analyze the evolution of events.

5.7 Dynamic alarm presentation

5.7.1 (Alarm state changes)

The major alarm change presentation is illustrated in the sequence of dynamic alarm list snapshots:


The latest alarm is initiated by DACG-03451-7 as a fault.
8:21:34 PM 10/18/01 DACG-03451-7 Point: Obscuration Gas in Duct to IER/Battery Room Fault ProcessAlarm F:1285 L:2791;
Time Tag Reason Description State Type Fault Data
8:21:34 PM 10/18/01 DACG-03451-7 Point: Obscuration Gas in Duct to IER/Battery Room Fault ProcessAlarm F:1285 L:2791;
A new alarm, initiated by DFSS-03451-1 as an alarm
8:22:12 PM 10/18/01 DFSS-03451-1 AnaLaser Smoke in IER/Battery Room Alarm ProcessAlarm
Time Tag Reason Description State Type Fault Data
8:22:12 PM 10/18/01 DFSS-03451-1 AnaLaser Smoke in IER/Battery Room Alarm ProcessAlarm
8:21:34 PM 10/18/01 DACG-03451-7 Point: Obscuration Gas in Duct to IER/Battery Room Fault ProcessAlarm F:1285 L:2791;

5.8 Last alarm line

The last alarm line displays, at any time, the most recent, unacknowledged alarm in the system.

5.9 Event images

5.9.1 Named Event images

Users with appropriate configuration privileges may define as many named Event images as applicable. These images may be configured into the different image window navigators of the OS.

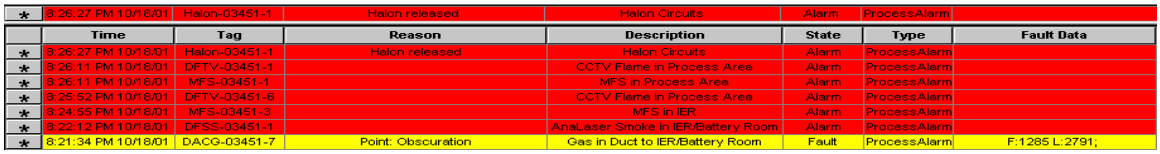
5.9.2 Display of Event images

An Event image is selected either:

- By clicking the icon on the toolbar
- By selecting it from the navigator

Event images are also available on the historical list.

An Event image occupies the entire main work area of the AutroOs window.


8:26:27 PM 10/18/01 Halon-03451-1 Halon released Halon Circuits Alarm ProcessAlarm
Time Tag Reason Description State Type Fault Data
8:26:27 PM 10/18/01 Halon-03451-1 Halon released Halon Circuits Alarm ProcessAlarm
8:26:11 PM 10/18/01 DFTV-03451-1 CCTV Flame in Process Area Alarm ProcessAlarm
8:26:11 PM 10/18/01 MFS-03451-1 MFS in Process Area Alarm ProcessAlarm
8:25:52 PM 10/18/01 DFTV-03451-6 CCTV Flame in Process Area Alarm ProcessAlarm
8:24:55 PM 10/18/01 MFS-03451-3 MFS in IER Alarm ProcessAlarm
8:22:12 PM 10/18/01 DFSS-03451-1 AnaLaser Smoke in IER/Battery Room Alarm ProcessAlarm
8:21:34 PM 10/18/01 DACG-03451-7 Point: Obscuration Gas in Duct to IER/Battery Room Fault ProcessAlarm F:1285 L:2791;

5.9.3 Title bar

The title bar reflects the currently selected page.

5.9.4 Event image tabs

Tabs at the bottom of the image pane let you select among different 'pages': **Dynamic alarm page**, **Static alarm page** and **Historic event page** (Whether the latter is included depends on the settings of the Global/Event System/EventView parameter *'Number of Pop Up tabs'* in the SysConf database). Clicking a tab, displays the corresponding page.

5.10 Status line

5.10.1 Dynamic and static alarm pages

Status for these two pages are displayed.

However, if the status is not 'OK', this field displays a data gathering error message to announce that the contents of the page may be incorrect.

5.10.2 Historic event page

On the historic event page, the status line displays the database status, the number of records and the time span currently displayed. Upon error, an error message is displayed.

5.11 Event toolbar

The functions connected to the controls in the Event image specific toolbar are:
Sound off. This button is only available when the sounder in AutroOS is activated.

Sound off. This button stop the sound buzzer.

Acknowledge (ref.5.4). The button is available when there are unacknowledged alarms from controlled sources in the displayed page.

The buttons are not available when the dynamic page is displayed.
In the static page, the buttons let you page up and down through the entire length of the list. When paging through the static page, data are to be gathered from the relevant stations.
In historic event page, the buttons let you move the time span forwards (up) or backwards (down).

Launches the **Select filter** (ref. **Feil! Fant ikke referansekilden.**) dialog box.

Refreshes the current list. In dynamic pages, the function deletes the current records and collects new information from the controlled nodes. In historic pages, a new query is sent to the event database.

The button is available with historic pages only. It launches the **Date and Time** (ref. 0) dialog box.

The button is available with historic pages only. The function is available during database reading only and aborts the read operation upon selection.

5.12 Dynamic and static alarm pages

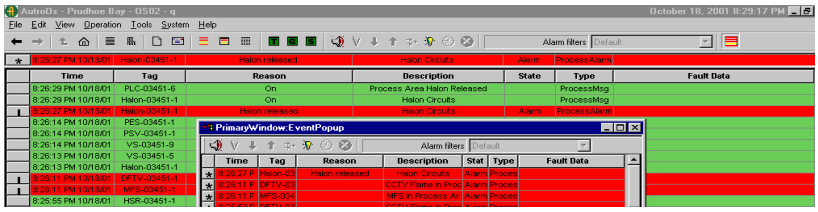
Dynamic and static alarm pages behave in a similar way: both pages are updated upon alarm changes but alarms that occur after the event image or dialog is selected, are added to the dynamic page only. That means that the dynamic alarm page always displays the most recent alarms.

The static page, however, will normally be emptied as acknowledged alarms return to the normal and void state.

The dynamic page has a fixed length: I.e. as alarms are added to the top of the page, older ones are pushed down or out of the page. The static page however, may contain several pages, dependent on the number of alarms that were active and match the current filter selection (ref.0).

Note that the static and dynamic page may have different active filters.

Upon selection of the event image or event dialog, the default filter is always applied to all pages. However, you can change to any other available filters. When the static page is selected from the dynamic page, the latest selected page inherits the filter from the dynamic one. However, if the previous page was the historic page, the latest selected filter for the page in question is selected.

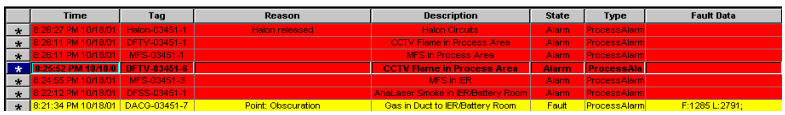

File Edit View Operation Tools System Help
Time Tag Reason Description State Type Fault Data
PrimaryWindow:EventPopup

When both event image and event dialog are displayed, selections made in one page are reflected in the other one too. This feature makes it easier to track items even when selecting different pages or differently filtered pages

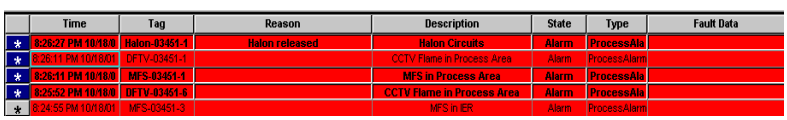
5.13 Selecting items in alarm pages

Selections made in one alarm page are reflected in all alarm pages. I.e. if your selection includes the latest alarm, this item will be selected in both the actual page where you make the selection and the last alarm line. This is a useful feature, especially when applying different filters to a page in the event image and event dialog. Note that this feature does not include the historic event page.
To cancel any selection, click in any field that is not in the left column of the page.
There are several methods for selecting items in alarm pages.

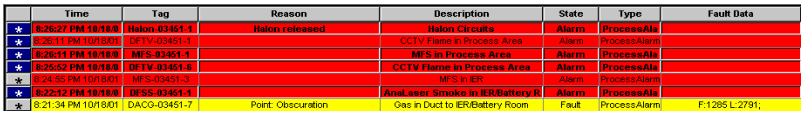
- **Single row selection**: click in the left field in the row. All previous selections are removed.


Time Tag Reason Description State Type Fault Data
8:26:27 PM 10/18/01 Halon-03451-1 Halon released Halon Circuits Alarm ProcessAlarm
8:26:11 PM 10/18/01 DFTV-03451-1 CCTV Flame in Process Area Alarm ProcessAlarm
8:26:11 PM 10/18/01 MFS-03451-1 MFS in Process Area Alarm ProcessAlarm
8:26:52 PM 10/18/01 DFTV-03451-6 CCTV Flame in Process Area Alarm ProcessAla
8:24:55 PM 10/18/01 MFS-03451-3 MFS in IER Alarm ProcessAlarm
8:22:12 PM 10/18/01 DFSS-03451-1 Analoser Smoke in IER/Battery Room Alarm ProcessAlarm
8:21:34 PM 10/18/01 DACO-03451-7 Point: Obscuration Gas in Duct to IER/Battery Room Fault ProcessAlarm F:1285 L:2791;

- **Continuous multiple row selection:** Click in the left field of the first row to be included in the selection. Keep SHIFT key down while clicking in the left field of the last row to be included in the selection.


Time Tag Reason Description State Type Fault Data
8:26:27 PM 10/18/01 Halon-03451-1 Halon released Halon Circuits Alarm ProcessAla
8:26:11 PM 10/18/01 DFTV-03451-1 CCTV Flame in Process Area Alarm ProcessAlarm
8:26:11 PM 10/18/01 MFS-03451-1 MFS in Process Area Alarm ProcessAla
8:26:52 PM 10/18/01 DFTV-03451-6 CCTV Flame in Process Area Alarm ProcessAla
8:24:55 PM 10/18/01 MFS-03451-3 MFS in IER Alarm ProcessAlarm

- **Random multiple row selection**: Click in the left field of the first row. Keep CTRL key down while clicking in the left field of the rows to be included in the selection.



	Time	Tag	Reason	Description	State	Type	Fault Data
★	8:26:27 PM 10/18/0	Halon-03451-1	Halon released	Halon Circuits	Alarm	ProcessAla	
★	8:26:11 PM 10/18/01	DFTV-03451-1		CCTV Flame in Process Area	Alarm	ProcessAlarm	
★	8:26:11 PM 10/18/0	MFS-03451-1		MFS in Process Area	Alarm	ProcessAla	
★	8:26:52 PM 10/18/0	DFTV-03451-6		CCTV Flame in Process Area	Alarm	ProcessAla	
★	8:24:55 PM 10/18/01	MFS-03451-3		MFS in IER	Alarm	ProcessAlarm	
★	8:22:12 PM 10/18/0	DFSS-03451-1		AnaLaser Smoke in IER/Battery R	Alarm	ProcessAla	
★	8:21:34 PM 10/18/01	DACG-03451-7	Point: Obscuration	Gas in Duct to IER/Battery Room	Fault	ProcessAlarm	F:1285 L:2791;

Using CTRL+Click in the left field of a selected row, deselects that row.

- **Select all** (ref.0)

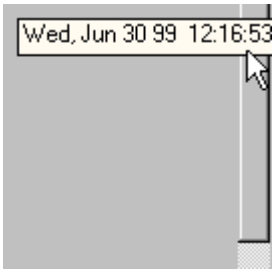
5.14 Historic event page

While the dynamic and static alarm pages are fed by the the Event Server, the historic event page fetches information from the event database. The historic event page acts like a log, the dynamic and static pages act like 'indicators and controls'. That makes it obvious why alarms can not be acknowledged from the historic event page.

The historic event page lets the user query the event database. The database query is defined by the applied filter and the user defined time span.

- All functions related to historic event page operation are available from the context menu and the event toolbar (ref. 5.11).

The universal event filter is the system default for the historic event page. That means that all events are passed through. Historic event presentation requires that an ODBC data source name is defined and that appropriate event storage parameters are set.



The vertical scroll bar of the historic event page lets you navigate within the defined time span: When you operate the scroll bar a message box displays the time stamp of the event that will appear in the top row of the event page.

5.15 ODBC data source name (for the event database)

Historic event presentation requires that the data source name 'OSKEventDb', using the Microsoft Access Driver (*.mdb) is defined on the OS. The User Data Source must point to the database file defined in the OS specific EventStore parameter *'DBLocation'*. The default path for the event database is C:\lev\db\event.mdb.

5.16 Event popup window

Event popup is selected from the icon in the toolbar. It invokes a resizable popup window that floats on top of the OS application.

- The operation of the event popup window is identical with the operation of the Event View (ref.5.9)

5.17 Viewing and acknowledging alarms

The Event system indicates the alarm states as shown in the table below:

	Acknowledged alarm
	Unacknowledged alarm

5.17.1 Viewing alarms

Alarms can be viewed in different ways:

- The last *unacknowledged* alarm can be viewed on the last alarm line of any image displayed in the primary image window.
- To get a complete overview of all alarms - acknowledged and unacknowledged, display the appropriate Event image. (The Event image with the appropriate alarm filter settings.) Use the tree pages - Dynamic Alarm Page, Static Alarm Page and Historic Event Page - as applicable.
- Note! System alarms on PCUs can also be viewed by entering the PCUs from the Station Explorer or Station Status images.

5.17.2 Last alarm line

To acknowledge the last alarm on the primary image window, proceed as follows:

1. Select the last alarm line. On the toolbar, click . The alarm is removed from the last alarm line. On the appropriate Event image, the unacknowledged alarm mark (see above) on this particular alarm has disappeared.

2. If your application contains more unacknowledged alarms, the next, appropriate unacknowledged alarm is displayed on the last alarm line.

5.17.3 Event image

To acknowledge alarms on the appropriate Event image, proceed as follows:

1. Select the alarm(s) (ref.5.13)you want to acknowledge. On the toolbar, click . The unacknowledged alarm mark (see above) disappears.
2. If no alarm is selected prior to clicking , all unacknowledged alarms are acknowledged.
3. Note! System alarms on PCUs can also be acknowledged by entering the PCUs from the Station Explorer or Station Status images.

5.18 Defining time span

To define the time span for events displayed on the Historic Event Page, proceed as follows:

1. Display the Historic Event Page, for which you want to change the time span.
2. On the toolbar, click . The **Date and Time** dialog box (ref.0) is displayed.
3. To define the most recent end of the time span, use the fields contained in the **Most recent time** group box: Either click the **Now** button, or use the calendar, drop-down list boxes and text boxes.
4. To define the relative backward time span, type in the appropriate values in the text boxes contained in the **And backward time span** group box. Close the box.
5. The Historic Event Page is instantly updated with the new time span, which is displayed on the status line.

6. Operator Station

The OS provides an operator interface to the plant, including process animation, alarm lists, trends etc. The OS is furthermore an user interface provider for the communication between the user and the AutroSafe stations. It also provides the user interface to the access control system and the command control system.

6.1 User interface

The OS user interface provides functionality for normal operation and configuration of your application. To achieve this, the OS provides several mechanisms.

Environment
OS can be run in the following environments:

1. Windows desktop application, running like any other application in a Windows NT environment.
2. Strict OS execution. The OS application is the only application available to the operator.

Image window configurations
AutroOs images are displayed in the main view areas of the primary, secondary and floating image windows (ref.6.10). To view an example of a user interface with primary and secondary image windows see chapter 6.10.1and 6.10.2.

In this example, all image windows are shown on the same OS display. Normally, however, the image windows will be of 'normal' size, and will be displayed either on large screens or on multiple screen OSs.

Access control
User groups are configured to give each user access to the functionality the user needs to perform the work tasks.

Command control
To avoid concurrent operation of the same command groups, and to restrict user access to specific command groups, the OS is equipped with a command control mechanism.

Process and application control
Commands are provided on the main menu and the toolbar, and also on image/mode sensitive context menus.

The OS may also have an operator panel connected, which is based on a standard keyboard and then tailor made to the operator.

6.2 Title bar

The title bar provides the following identification information:

6.3 Main menu

The main menu contains the menus that are most frequently used during normal operation and configuration. Some menus are restricted to the primary image window (ref.6.10.1), and are thus not available in the secondary image windows (ref. 6.10.2) and floating image windows (ref. 6.10.3)

- The **Panel** menu is only present on the main menu when your OS is configured with an operator panel.

Presence of commands on menus depends on:

1. The image type. Only commands that are relevant to the displayed image are present on the menu.
2. Which components that are configured. The **Command Control** command is present on the **Operation** menu only if your OS is configured with command control.
3. Whether OS configuration mode is selected or not.

The reason why a command is unavailable may be one or more of the following:

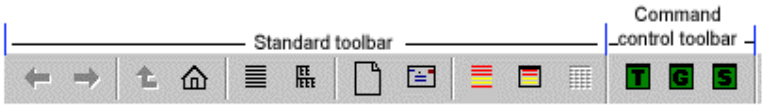
- The command is unavailable in the current mode of operation.
- No associated object has been selected.
- The user hasn't got the appropriate access right that is required to use the command.

6.4 Toolbars

The toolbars are specific to each image and image window type. They contain command buttons and toggle buttons.

6.4.1 Primary image window toolbar

The primary image window toolbar is shown in the illustration below.



The toolbar is composed of three parts:

Standard toolbar	The standard toolbar is displayed in all image types. The command buttons are shortcuts to menu commands. (Exceptions: the navigation arrow buttons, which are not contained on any menu). The buttons of this toolbar are described in the reference information section of this component, see Standard toolbar buttons (ref. 11.5.17).
Command Control toolbar	The command control toolbar is displayed whenever command control is configured. The command buttons are shortcuts to menu commands. See Command Control toolbar buttons (ref. 11.5.17)..
Popup management toolbar	The toggle buttons are used to maximize and minimize floating image windows and currently active popups dialog boxes.

6.4.2 Secondary and floating image window toolbars

In secondary and floating image windows, the standard toolbars don't comprise command buttons for **Message manager**.

The other parts of the toolbars are identical to the primary image window toolbar, see the description above.

6.5 Last alarm line

The last alarm line displays, at any time, the most recent, unacknowledged alarm in the system.

6.6 Main view area

The **Main view area** is the user interface area where images are displayed.

6.7 Status bar

The status bar is displayed at the bottom of the OS view, below the main view area. It displays messages and information from the system.

Show module parameter view
(2260,0) w: 1484 h: 996 (3737,1) (3...11)
Standard message area
Area used to display image dependent information.

6.8 Image management

Information and user interaction means are presented to the user via images. An image has a name and contents. An image belongs to any of the image types defined in the system (Process, Trend, Event, Equipment or Generic). An image contains sufficient information to draw the image in the main view area.

Throughout the configuration, the image name is used for navigation purposes.

6.9 Image types

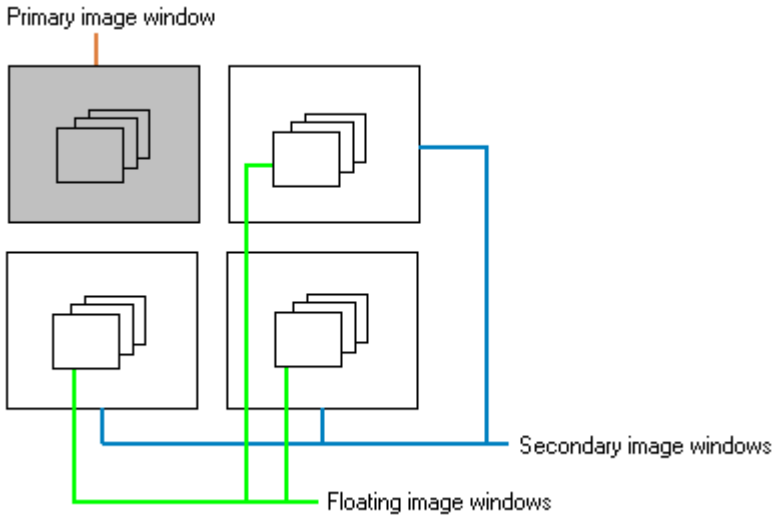
AutroOs contains the following image types:

Image type	Description
Process	A graphical image type providing enhanced graphics and functionality for operation of the modules. The graphics provides a real life vision of the modules and site arrangements, with the arrangement of the modules as designed in each image, and not as defined in the AutroOs world space. Process images can be configured with hotspots that provides shortcuts to other images within your configuration.
Trend	A graphical image type showing trends for module variable states.
Event	A list type image showing alarms and events.
Equipment	A list type image showing status of the stations in the system.
Generic	A simple image type that only support hotspots. Generic images must be configured with hotspots that provides shortcuts to other images within your configuration.

6.10 Image window types

AutroOs provides three image window types:

- A primary image window (on off per OS)
- Secondary image windows (unlimited number per OS)
- Floating image windows (unlimited number per OS).



One primary image window and an applicable number of secondary image windows may be configured on a large screen, or in multiple screen solutions. It is also possible, however not recommended, to configure several primary and secondary windows on one standard OS display screen.

6.10.1 Primary image window

The primary image window is mandatory in any application. Some basic functionality is only available in this window. Applications running on one screen will normally have the primary image window only, in addition to floating image windows.

Functions restricted to primary image window
Some functions are restricted to the primary image window only. These are:

- System menu operations
- Alarm line in the event system
- Message Manager
- Command control
- Log off and exit.

6.10.2 Secondary image window

Applications running on multiple screen solutions or on a large screen will normally have a number of optional secondary image windows in addition to the primary image window. The functionality of a secondary window differ from that of the primary window as listed above.

6.10.3 Floating image window

A floating image window is a resizable and movable image window that is contained in either the primary or a secondary image window. It has the same functionality as secondary image windows.

To avoid recurrence, a floating image window cannot contain any other floating image windows.

6.10.4 Restrictions

Floating image windows, popups or dialog boxes cannot be moved outside its image window.

6.10.5 Navigation between image windows

Moving your cursor to another image window shifts the focus to that image window.

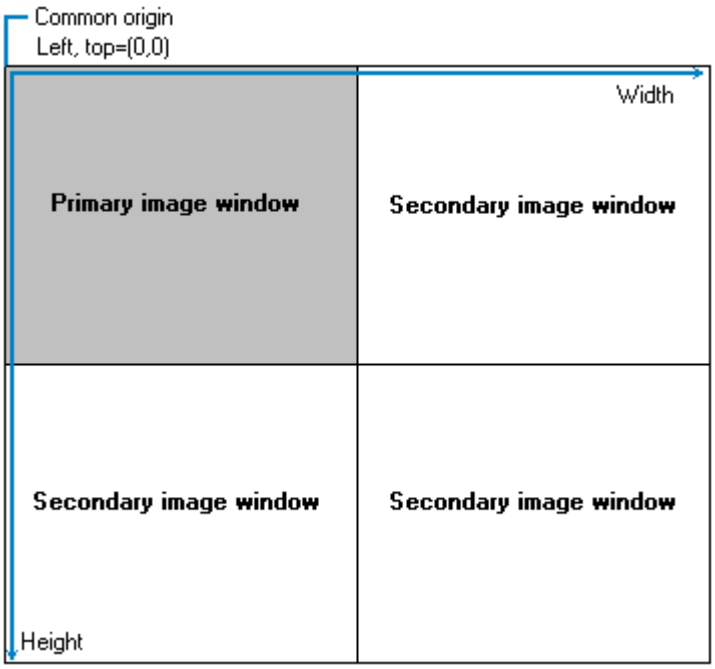
The Navigator provides a context menu for the selected image, which lets you select the image window that you want the image to be displayed in.

In Flow, Process and Generic images, you can configure hotspots, which display images and popups in other image windows.

6.11 Desktop area for image windows

Primary and secondary windows of your OS are defined in a common desktop area. The size of this area depends on the display screen configuration and the screen display driver that is installed.

When configuring the image windows, the common desktop area origin is the basis for positioning of all image windows. This origin is located to the top left.



The primary image window and all the secondary image windows (you can define as many secondary image windows as you want), can be located anywhere in the desktop area. However, no image windows can overlap each others. If you attempt to define overlapping image windows during configuration, the system issues an error message.

6.12 Image navigation

The OS provides various means for navigation between the images. These means are the following:

Navigation mean	Description
Navigator	The navigator lets you select the name of the image that is to be displayed in the main view area.
Hotspots	The hotspots provide links to other images.
History Navigator	Provides the historical sequence of the images that have been displayed in the main view area.
History navigator arrow buttons	When clicked, they navigate you back and forth in the image history.
Operator interaction devices	Keyboard with pointing device can be used for image navigation during both normal operation and configuration. If your OS is configured with an operator panel and alarm panel, you can navigate between images using buttons on these panels.

6.13 Navigator

The Navigator is a hierarchy of images on your OS. The Navigator is displayed in a dialog box and lets you select images for display in the main view area. By default, the selected image is displayed in the current image window. However, using a context menu, you can display the selected image in any of the primary, secondary or floating image windows defined on your OS.

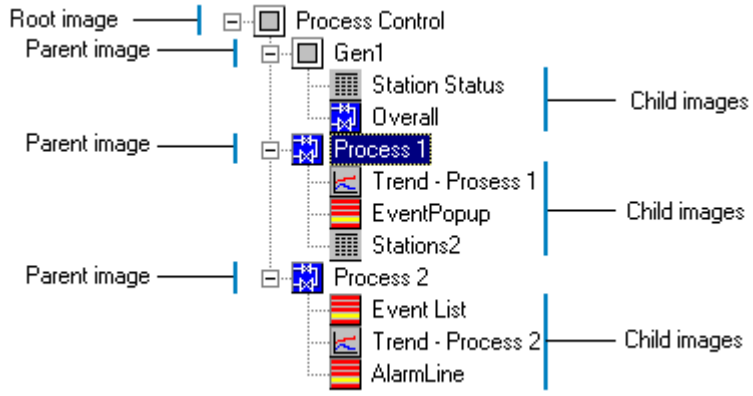
Each image type has a bitmap representation (icon) for easy visual identification of the image type.

You can toggle the Navigator between *tree view* and *list view*.

6.13.1 Tree view

When tree view is selected, the navigator contains the image tree structure for the image window.

The illustration below typically shows the navigator for a primary image window. The navigator root is shown on top. Parent images and their child images are structured to match the needs of your OS. Typically, a parent image will be selected as root for a secondary image window. Thus, only selected images are available on that navigator.



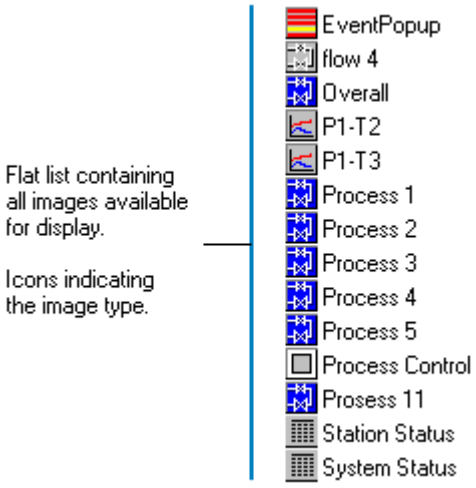
Clicking an image displays that image in the current image window.

Clicking the **Parent** button on the toolbar displays the parent image of the currently displayed image.

Clicking the **Home** button on the toolbar displays the home image defined for the current image window. (Home images are not indicated in the illustration above.)

6.13.2 List view

When list view is selected, the Navigator lets you select among all available images, or among all available images of the different image types.



By default, the selected image is displayed in the current image window, that is, in the image window where the navigator was opened.

Optionally, you can display the selected image in any other image windows defined on your OS by displaying the context menu, which provides a list of all the image windows.

6.13.3 Navigator configurations

Each image window can be configured with its specific navigator. On OS level, one image is defined as the top root. Using the appropriate commands and dialog boxes, users with OS configuration privileges can create roots and child images for each image window. Thus, the Navigator for a specific image window can contain only the most relevant shortcuts to other images.

All images that are available on your OS are initially contained in a list. When you have dedicated an image to a navigator in a specific image window, this image is no longer available for navigators in other image windows. This also applies to Equipment and Event images.

6.13.4 History navigator

The History navigator lets you select among previously displayed images. The number of images contained in the historical list can be defined by users with OS configuration privileges.

6.14 Hotspots

6.14.1 Functionality

A hotspot provides a shortcut to another image. When you click a hotspot, the linked image is displayed in the main view area.

- Only Process or Generic images can contain hotspots.
- To navigate from Trend, Event, Equipment images, you must use either the historical navigator arrows (**Previous** and **Next**), the **Navigator** or the **History Navigator**.

6.14.2 Appearance

In the illustration below, **My Trend** is a hotspot. Clicking this hotspot displays the Trend image **My Trend**, which contains trends for chosen process values.

The hotspot appearance can be:

- The hotspot can have a 3D button form - as above, or it can be a 2D rectangle.
- The hotspot can have a color that distinguishes it clearly from the background, or the hotspot can have the same color as the image background.
- The hotspot can be a text string only.
- The hotspot can be invisible, that is, you can define an invisible bounding rectangle as the hotspot. The hotspot can be located anywhere in the main view area of Generic or Process images.

6.14.3 Activation

When passing over a hotspot, the cursor appearance changes as indicated in the figure below.

Cursor outside the hotspot

Cursor within hotspot. Cliking displays the destination of the link.

6.15 Signature commands

AutroOs supports function signature commands, which controls the displaying of images and popups.

6.15.1 Area of use

Function signature commands can be configured the following places:

Hotspots	Hotspots in Generic and Process images.
Function keys	All function keys on keyboard, SVC-11PAN and SCS-11PAN.

6.15.2 Syntax

The syntax listed in the table below apply to the function signature commands:

"ImageWindowName"	Replace this string with the name of the appropriate image window without quotes.
<CurrentImageWindowName>	When this string is used, the resulting action is displayed in the same image window that is was initiated from.
[.parameters]	Applicable in certain popup (ref. 6.16) function commands. Brackets indicate that the parameters are optional.

6.15.3 Types

The function signature commands are classed as follows: Image and popup.

6.16 Popup function signature commands

The system supports the following popup management function signature commands.

6.16.1 CreatePopup

Designation	PopupManager.CreatePopup.framename.popuptype.popupname[.parameters]
Function	Create a new popup.
Input string parameters	
framename	Name of registered frame
popuptype	Name of the type of popup
popupname	Popup name
parameters	(optional) Parameters forwarded to popup
Input string array parameters	None
Output String Array Parameters	None
Return Value	Returns TRUE on success.
Comments	The popup is created, not shown. To show, use ShowPopup. Different popup types use the popup name and parameters at their own discretion.

6.16.2 ShowPopup

Designation	PopupManager.ShowPopup.framename.popuptype.popupname[.parameters]
Function	Show popup.
Input string parameters	
framename	Name of registered frame
popuptype	Name of the type of popup
popupname	Popup name
parameters	(optional) Parameters forwarded to popup
Input string array parameters	None
Output String Array Parameters	None
Return Value	Returns TRUE on success.
Comments	If popup does not exist, it is first created. Different popup types use the popup name and parameters at their own discretion.

6.16.3 HidePopup

Designation	PopupManager.HidePopup.framename. popuptype.popupname[.parameters]
Function	Hide popup.
Input string parameters	
framename	Name of registered frame
popuptype	Name of the type of popup
popupname	Popup name
parameters	(optional) Parameters are ignored
Input string array parameters	None
Output String Array Parameters	None
Return Value	Returns TRUE on success.
Comments	The popup is hidden, but not destroyed. To destroy, use DestroyPopup.

6.16.4 DestroyPopup

Designation	PopupManager.DestroyPopup.framena me.popuptype.popupname[.parameters]
Function	Destroy popup.
Input string parameters	
framename	Name of registered frame
popuptype	Name of the type of popup
popupname	Popup name
parameters	(optional) Parameters are ignored
Input string array parameters	None
Output String Array Parameters	None
Return Value	Returns TRUE on success.
Comments	If popup is visible, it is first hidden. To hide only, use HidePopup

6.17 System modes

During normal operation of the plant, the tasks you can perform typically include:

- Operation of the modules in Process images
- Navigation between images
- Viewing of trends, and temporary configuration of certain trend features
- Acknowledgement of alarms and events and system messages
- Printout of images.

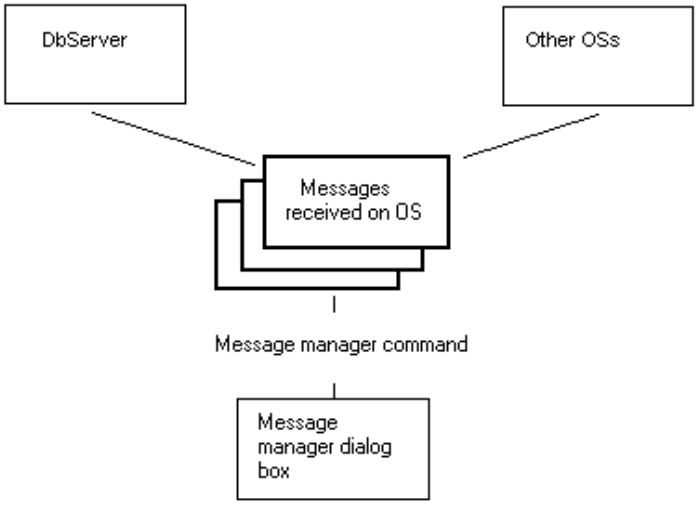
This type of use doesn't allow for any permanent changes in the AutroOs configuration. To configure permanent changes, you must enter **OS Configuration Mode** (restricted access).

6.18 Message Manager

The message manager provides a mail system for messages received from the AutroSafe, DbServer and other OSs of your configuration. Using the message manager, you can view, acknowledge and store messages.

6.18.1 Messages - types and handling

The Message manager provides process-to-operator messages, which are messages issued by either a DbServer, an OS or a module when some intentional state has been reached, or some intentional state-less event has occurred.



The command (ref. 11.5.10)for displaying the applicable message dialog is available several places. This dialog (ref. 11.5.9)box is used to view, acknowledge and store messages.

Whenever the message manager contains unread messages for your OS, indication on your OS user interface is provided.

6.19 Using the Operator Station

Procedures for complex tasks are provided in this section. The reference information for each command contains descriptions of how to use the command itself.

6.20 Startup and logon/logoff

This subsection contains procedures for startup, logging on and -off, and changing user.

6.21 Startup

To startup your OS, proceed as follows:

1. Turn on your OS.
2. Dependent on the startup configuration of your OS:
   Either:
   a Log on to Windows NT using the appropriate NT logon user name and password.

   or

   b Your OS is automatically logged on to Windows NT.

3. When your OS or OSHS is loaded, enter your OS logon password in the **Logon** dialog box.
4. You are now logged on to OS, and the startup image is displayed in the main view area.

6.22 Logging on, logging off and changing user

6.22.1 Logging on

This procedure assumes that your configuration is running, but your OS is logged off.

To log on to your OS, proceed as follows:
1. Ensure that the **Logon** dialog box is displayed.
2. If another user name is displayed in the **User** box select, eventually type in, your user name, and then type in your password.

3. If you have entered a valid user name and password combination, the **Logon** dialog box closes, your logon user name is displayed in the title bar and you are given the appropriate access to your configuration. The level of access you are granted will depend upon the user group of which you are a member.
4. If you enter an invalid user name and password combination, the **AutroOs Invalid password** dialog box is displayed. Close this box. The **Logon** dialog box is displayed again.

6.22.2 Logging off

This procedure assumes that you want your OS to be used by another user.

To log off, proceed as follows:

1. On the **File** menu, click **Log off** (ref. 11.1.2).
2. The **AutroOs Logoff?** dialog box is displayed. Confirm the logoff.
3. The **AutroOs Logoff?** dialog box closes, and you are now logged off. The **Logon** dialog box is displayed.
4. To log on as another user, see the Logging on procedure above.

6.22.3 Changing user

To change to a different user you must first log off and then log on again using the required user name (see the procedures above).

Alternatively, if you are logged on as a member of the *Administrators user group*, you may use the **File** menu's **Exit** command to change user. To change user by using the **Exit** command, proceed as follows:

1. On the **File** menu, click **Exit** (ref. 11.1.3)
2. The **Shut Down** dialog box is displayed. Select the option **Log on as a different user?**.
3. The **Shut Down** dialog box closes and the **Logon** dialog is displayed. Select or type-in the new user name in the **User** drop-down list box. Type in the required logon password in the **Password** box and confirm.
4. The **Logon** dialog box closes, the entered user name is displayed in the title bar and the appropriate level of system access is granted.

6.23 Images and image windows

This subsection contains procedures for configuration of images and image windows.

6.24 Creating floating image windows

All users can create floating image windows as applicable.

6.24.1 Procedure

1. Select the primary or secondary image window in which the floating image window is to be defined.
2. On the **File** menu, select **New Image Window...**. The **New Image Window** dialog box is displayed.
3. Type in the name of the floating image window in the text box. The new floating image window is displayed. A popup button is displayed on the popup management toolbar.
4. To display an image in this image window, open its navigator and select image.
5. To display the parent image of the image currently displayed: On the toolbar, click the **Parent image** button.
6. To maximize or minimize this image window, toggle its popup button on the toolbar. If you close the floating image window, it is deleted.

6.25 Using operator interaction devices

This section provides general procedures for the usage of the operator interaction devices during normal operation. Note that the procedure items below are general, and must be adapted to the operator panels used, and to your configuration.

6.25.1 Operating modules

- Use the buttons and pointing device to display the appropriate image, acquire command control and operate the modules contained in the images.

6.25.2 Images - navigation and viewing

To view an image, either:

a. Open the navigator by clicking the navigator button, which displays the navigator. Use the trackball to select image for display.

If applicable, use the historical navigator buttons to display previous or next image.

6.25.3 Command control

1. To initiate Take, Give or Status, click the appropriate button of the Command group.

2. The **Command Control** dialog box is displayed with the appropriate tab opened.

6.25.4 Alarms

For the dedicated alarm panel, see below.

- In images connected to buttons in the **Views/Area** regions, the alarm indication described above is given for each image. Use the acknowledgement button to acknowledge the alarm.
- Buttons for acknowledgement of alarms, turning audible alarm off and display of Event image (containing the alarm list) are provided. Use these buttons as applicable.

6.25.5 Keyboard functions

The **Keypad** group contains certain groups of keyboard functions:

- User-definable function keys. Click the appropriate function key to initiate the command that is configured on it.
- Numeric buttons. Use these buttons to enter numerical values into dialog boxes.
- Cursor control buttons. Use these buttons to move between fields in dialog boxes, and to scroll through lists.

6.25.6 Keyboard

- Optionally, you can use a standard Windows NT keyboard and a two-button mouse (or other pointing device) during both normal operation and configuration of your AutroOs application.

7. Process images

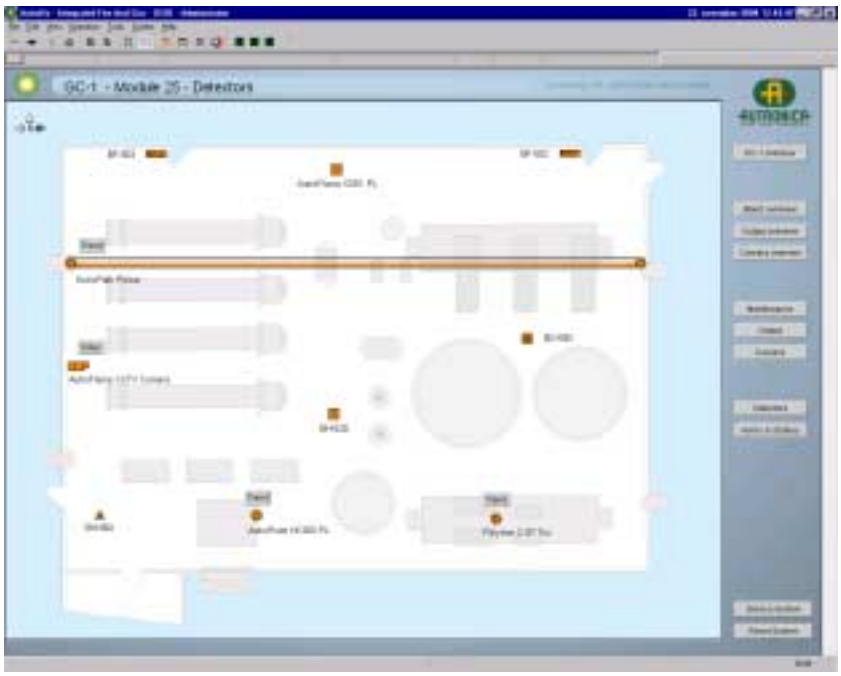
Please observe that pictures in this section are examples only, and can differ from installation to installations.

Process images are applications to basic AutroOs images that are generated outside the AutroOs and then implemented. When implemented, the Process images are operated and configured as integrated images.

This section describes how to implement the Process images into the AutroOs configuration. The description of the design and configuration of the Process images by using the SL-GMS is beyond the scope of this user guide.

7.1 Process image features

The Process images offer enhanced graphical presentation of some part of a process, compared to the graphical interface of the Flow images.



7.2 Process Pictures

An AutroOS system can contain different pictures as maps, maintenance, output pictures etc. which can be configured in different ways.

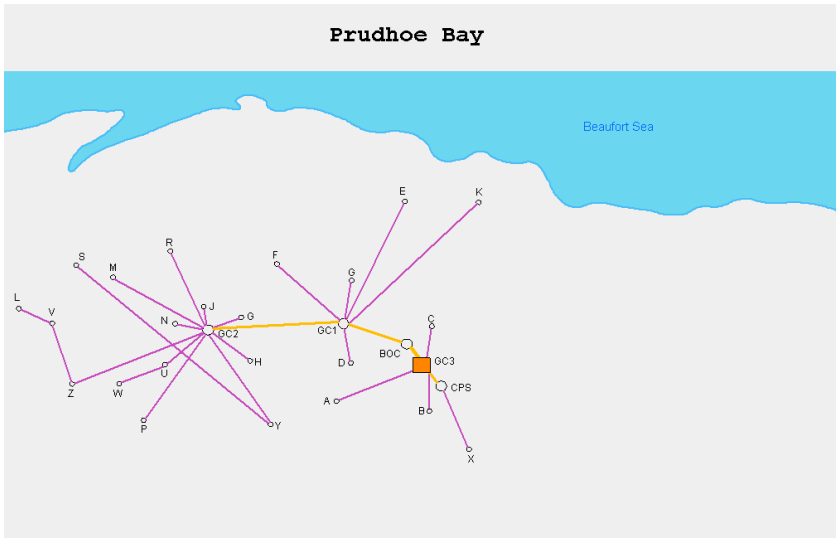
There are many ways to organize the picture hierarchy, all types of indicating symbols can be configured in the picture where they physically belong, or different types of indicating symbols can be configured in different pictures using the same background picture.

Example of picture types.

- Overview picture
- Part overview picture
- Detector Image
- Maintanance image
- Output Image

7.2.1 Overview Image

The overview image shows normally a graphical map over the covered area, with navigation hotspots to other prosess images.

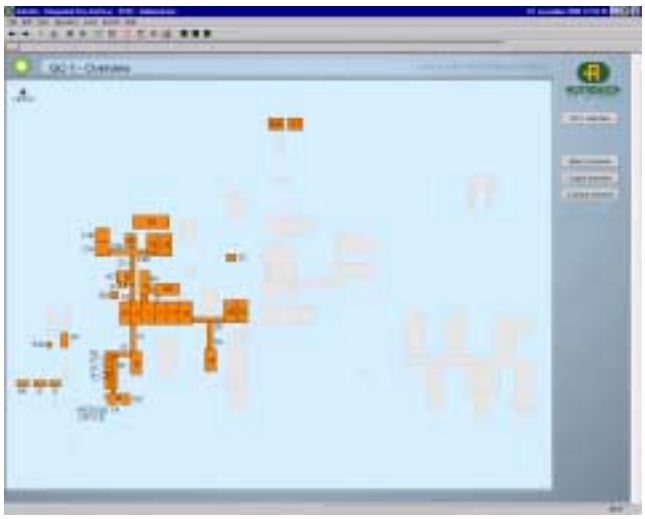


Functions in the overview image are

- Navigation functions, changing to other pictures.
- Indication of alarms, fault and other events

7.2.2 Part overview image

The part overview image shows normally a graphical map over part of the installation, can be a group of buildings, with possibilities to navigate.

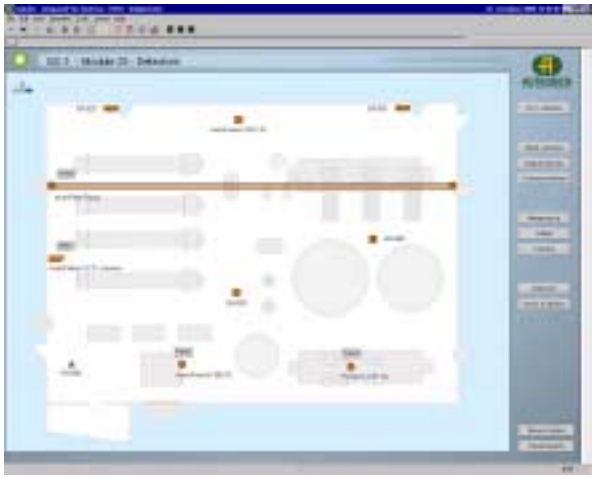


Functions in the part overview image are

- Navigation functions, changing to other images.
- Indication of alarms, fault and other events

7.2.3 Detector Image

The alarm image are used to indicate alarms and other events by using symbols. The detector image also contain navigation to other images and can contain buttons to for activating different functions.

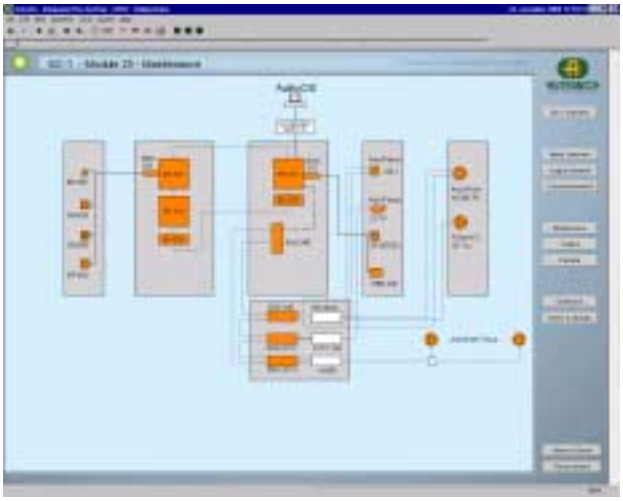


Functions in the detector images are

- Navigation functions, changing to other images and functions.
- Indication of alarms, fault and other events
- Posibillity to execut command as reset, inhibit etc.

7.2.4 Maintenance Image

A maintanance image is mainly used for monitoring all equipment installed. The page can also contain hotspots or button for easily navigation. Normally a maintanance image shows how the system is logically build up.

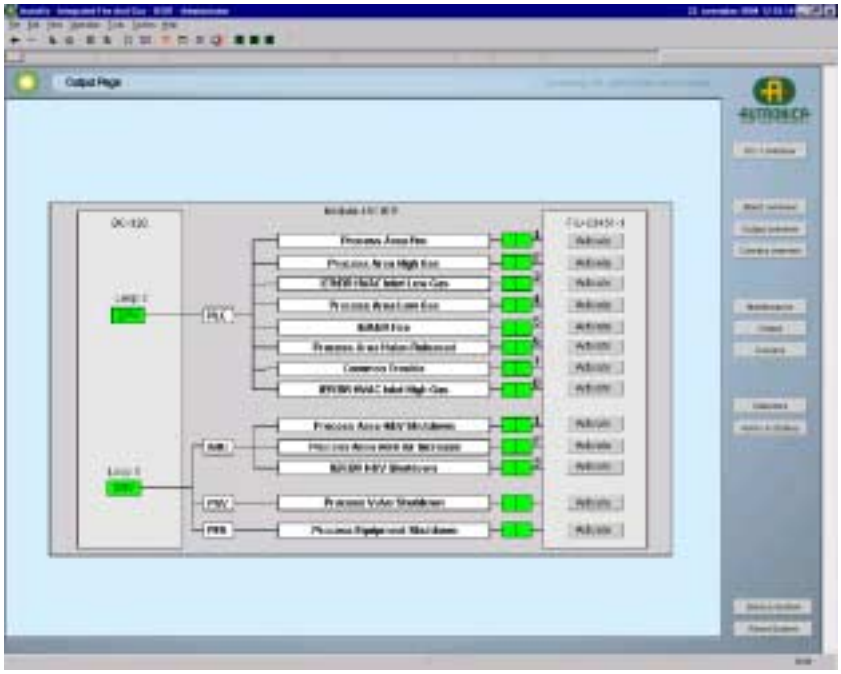


Functions in the maintanance image are

- Navigation functions, changing to other pictures and functions.
- Indication of fault

7.2.5 Output Image

All outputs can be grouped on an output page. This page contain symbols to indicate the status for the outputs. Statuses whic can be indicated are faults and output (activated) status.



Functions in the output image are

- Navigation functions, changing to other images and functions.
- Indication of output state.
- Manually activation of outputs.
- Override outputs

7.3 Normal plant operation

During configuration and normal operation, you have access to the Process image commands via the menu bar and context menus in the main view area.

The operations on the modules and the parameterization of the modules are performed in the same way in both the Process and the Flow images.

7.4 Picture jump

7.4.1 Automatic Display Navigation

Assumptions:

- That the operator has two operator stations (OS)
- That two levels of Overview area images is defined

Functionality:

- Site Overview Map. Covering the whole area
- Geographic Mimic. Covering the actual gathering centre or well pad

7.4.2 Automatic Alarm on Alarm

Automatic display navigation actions in case of an alarm:

- The Site Overview Map on top on OS1. The area covering the alarm will be flashing red.
- The Geographical Mimic covering the alarm on top of OS2. The building area covering the alarm will be flashing red
- Selection of flashing area in the Geographical Mimic will display the correct detailed window on OS2, and the symbol for device in alarm will be flashing red
- Selection of the flashing area in the Site Overview Map on OS2 will bring you to the geographical mimic. Selection of the flashing area in the Geographical Mimic will display the correct Detailed Area Page, containing the first detector, on OS1.

7.4.3 Automatic Navigation on Fault

Automatic display navigation actions in cause of fault:

- Display the Site Overview Map on top on OS1. The area covering the unit in fault will be flashing yellow
- Display the Geographical Mimic covering the unit in fault on top on OS2. The building area covering the unit in fault will be flashing yellow
- Selection of the flashing area in the Geographical Mimic will display the correct Detailed AreaImage Page on OS2, containing the first unit in fault. The symbol for device in alarm will be flashing yellow. The Maintenance Page will be shown in case the unit in fault is not present in any Detailed Area Page. For many devices this means flashing yellow on both Detailed Area Page and on Maintenance Page.
- Selection of the flashing area in theSite Overview Map on OS1 will display the Geographic Mimic. Selection of the flashing area in the Geographical Mimic will display the correct Detailed Area Image Page containing the first unit fault on OS1. The Maintenance Page will be shown in case the unit in fault is not present in any Detailed Area Page.

The automatic display navigation in case of fault will only take place after a reset.

7.5 Implementation of Process images

The principal work steps and requirements for designing Process images by using the external editor (SL-GMS) and then implementing these Process images into the AutroOs are the following:

1. The modules that are to be comprised in the Process images must be planned with their AutroOS world space tag names. They need however not to be configured in the AutroOS world space at the point of time when the Process image design process starts, refer to steps 2, 3 and 4 below.
2. The Process images are designed by using the external SL-GMS editor. The Process images are stored as xxxx.m1 (model) files.
3. The connections between the AutroOS modules and the sub modules in the Process image must be matched. This is achieved by defining the Process image UserData names equal to the AutroOS module tag names (this process is performed by using the SL-GMS editor).
4. A pre-processing of the Process image must be performed by using the utility program RenameModels.exe (not part of AutroOS). This pre-processing generates a new xxxx.m1 file and a xxxx.var file (comprising a list over all variables in the Process image).
5. The Process image can now be implemented in the AutroOs configuration and be operational, provided that the modules are configured and connected in the AutroOS world space by using the Flow image. Optionally, hotspots can be added to new and existing Process images.

7.5.1 Adding a hotspot to a Process image

To add a hotspot to a Process image, you can define the hotspot by using the **Add Hotspot...** (ref. 11.5.2)command and the **Hotspot Editor** dialog box (ref. 0) in almost the same way as when you define a hotspot in a Flow image, except that:

- You cannot define the hotspot boundaries by dragging the cursor in the main view area. Instead, when you choose the command above, the **Hotspot Editor** dialog box, in which you define the hotspot, is displayed directly.
- Locate the hotspot on a spot that will be displayed on the screen regardless of which display screen resolution that is selected by the user.

8. Report system

The report system lets you design and generate reports. It also provides report management, including report storage, -printing and -mailing.

8.1 Description (Require Crystal Report Designer)

This section contains the description of the report system. To fully understand all of the report system, you should have a good understanding of:

Time-series
Event system
Crystal Report Designer
SQL.

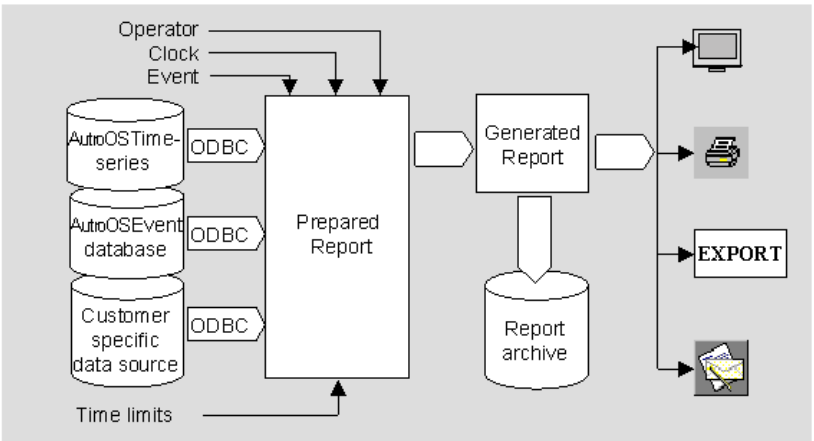
Note! This description contains a reference to:

http://msdn.microsoft.com/library/devprods/vs6/visualc/.

If you have no Internet connection, you can use the CD publication of MSDN library for the Visual C++ language to gain access to the same information.

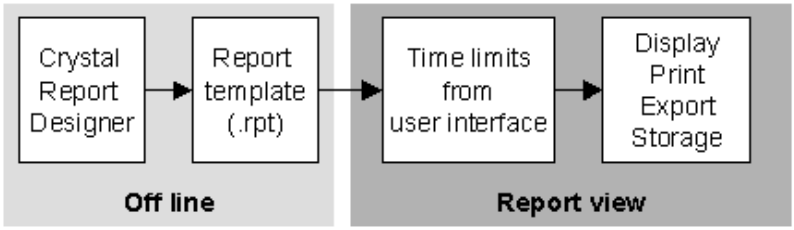
8.2 Report mechanism

8.2.1 Overview



8.2.2 Prepared reports and generated reports

The result of a report designed using the Crystal Reports system, is an .rpt file. Moving the .rpt files to the appropriate path in the OS file structure, makes them available as 'prepared' reports. The path is defined in the **Configure Report Manager** dialog box.



A 'prepared report' is a description specifying the data source, conditional data selection and output format. It does not contain data. When a 'prepared report' is run on the OS, it prompts the user for a time span, adapting the report definition accordingly, before producing a 'generated report': i.e. a report that contains data.
Generated reports can be displayed, printed on printer and stored in a file in different formats. The path for storage of generated reports is defined in the **Configure Report Manger** dialog box.

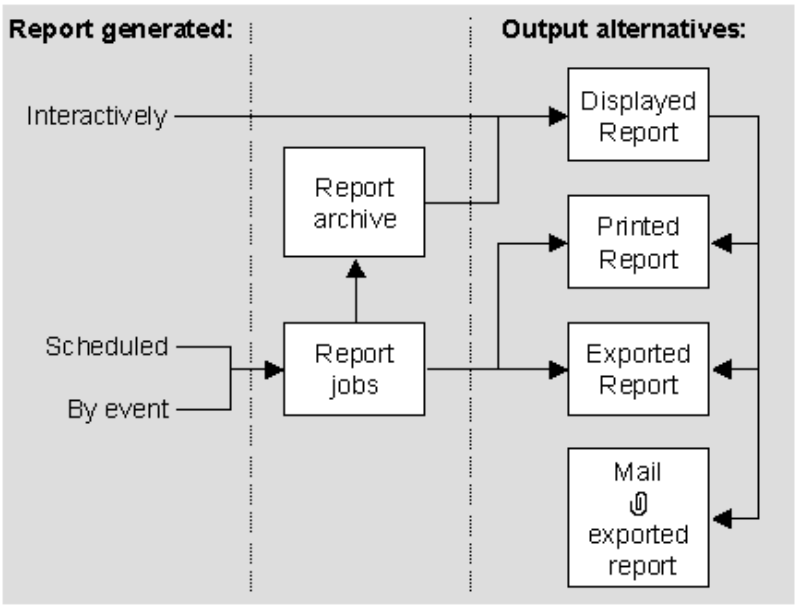
8.2.3 Triggering report generation

Report generation can be initiated in different ways:

- **Interactively** by the user: I.e. you select a prepared report and run it. The result is a 'generated' report containing data fetched from the data source, and presented in a separate window on the OS.
- **Scheduled** by the OS according to the schedule parameter settings of a report job. I.e. the system clock triggers a prepared report to be run. A scheduled report is stored in the report archive, but not displayed, automatically.
- **process event- triggered** reports: A configured AutroOS module ***trig_rep*** can trigger a defined report job. The generated report is not displayed automatically.

8.2.4 Report management

Depending of how the report generation was initiated, reports can be stored, displayed, printed, exported or mailed.



8.2.5 Displaying reports

AutroOS displays reports in popup windows. The specific report popup window includes appropriate controls to browse, scroll, scale, print and store and mail the report. Each report is presented in a single window that pops up on top of the AutroOS application. Interactive reports are displayed automatically as they are run while historic reports are displayed upon request. Scheduled reports, generated according to the specifications of a report job are not displayed automatically.

8.2.6 Report print-out

Generated reports can be printed on any printer available to the OS. Printing of displayed reports can be initiated from the appropriate control in the report window. Scheduled report may be configured to print the report upon generation.

8.2.7 Report storage

Reports can be converted to a large range of formats and stored in any destination that can be reached from the OS. Storage of displayed reports can be initiated from the appropriate control in the report window while scheduled reports may be configured to store the report upon generation.

8.2.8 Report mail

Reports that are displayed can be forwarded by electronic mail. The report is attached to the mail message. Automatic mailing as part of a report job is not available in this release.

8.3 Using the report system

The topics covered in this section deal with how to:

- Generate interactive reports
- Set up report jobs.

8.3.1 Generating interactive reports

On the Tools menu, select **Report Manager...**

Select the **Interactive Report** tab, if it is not displayed yet.

Select the prepared report you want to run.

Set the reporting period if required. Refer to settings for fixed and free time spans

Instead of selecting Report Manager from the menu, you can start report manager by clicking on the report icon, .

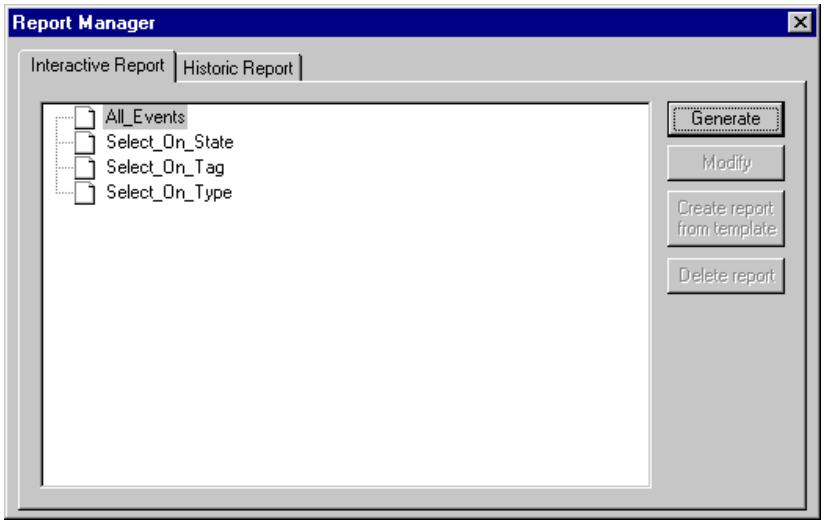
The report system generates the report and displays it in a Report Window, which title includes the prepared report name.

8.3.2 Interactive report types

4 different reports can be generated from the template.

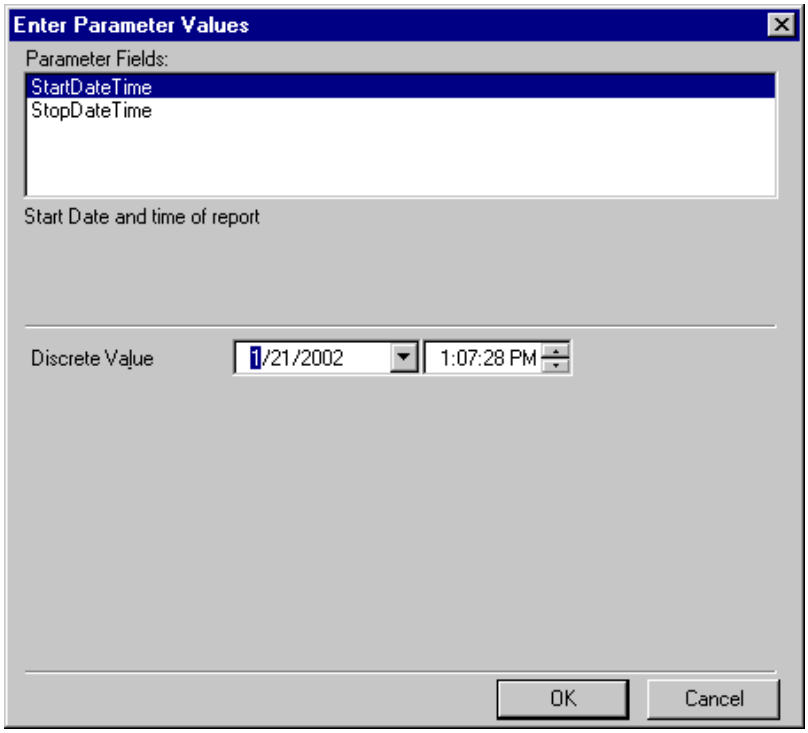
- All events based on time
- Selection Stat, (Use scrolldown menu)
- Tag names, (Use * as wildcard)
- Event Types , (Use scrolldown menu)

Report selection dialogue.



To Generate a report, lick on the report type you want to generate and press the Generate button.
Based on the type of report you selected, addition data must be entered in the following dialogue box.

All events.

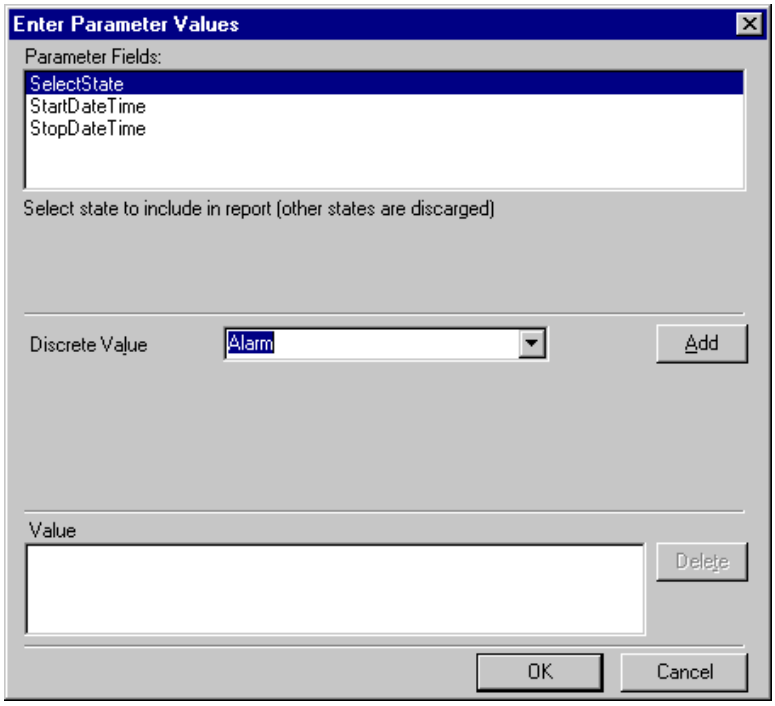


To generate the report do as follow.

Select Start and End date for the report. For more information please refer to the chapter Setting reporting period - fixed time span

Press Ok to generate the report.

Select on states.



State report will include all events of a given state for the selected start and end date for the report.

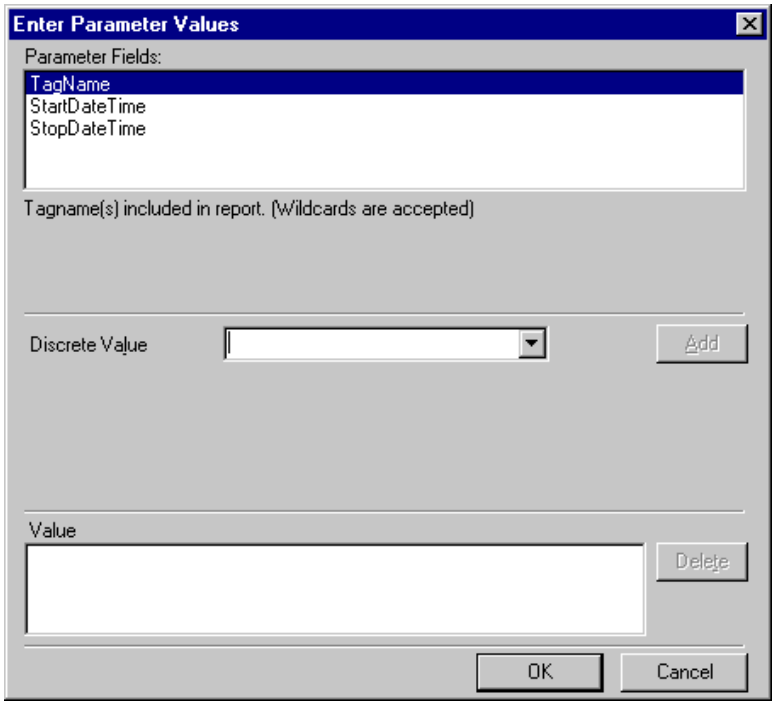
To generate the report do as follow.

Select the state from the Discrete Value box, and press the add button. Several states can be selected and included in the report. Valid states are Alarm, PreAlarm, Fault, Early Warning, Inhibit and Normal.

Select Start and End date for the report. For more information please refer to the chapter Setting reporting period - fixed time span

Press Ok to generate the report.

Select on tagnames.



Tagname report will include all events of given Tagnames for the selected start and end date for the report.

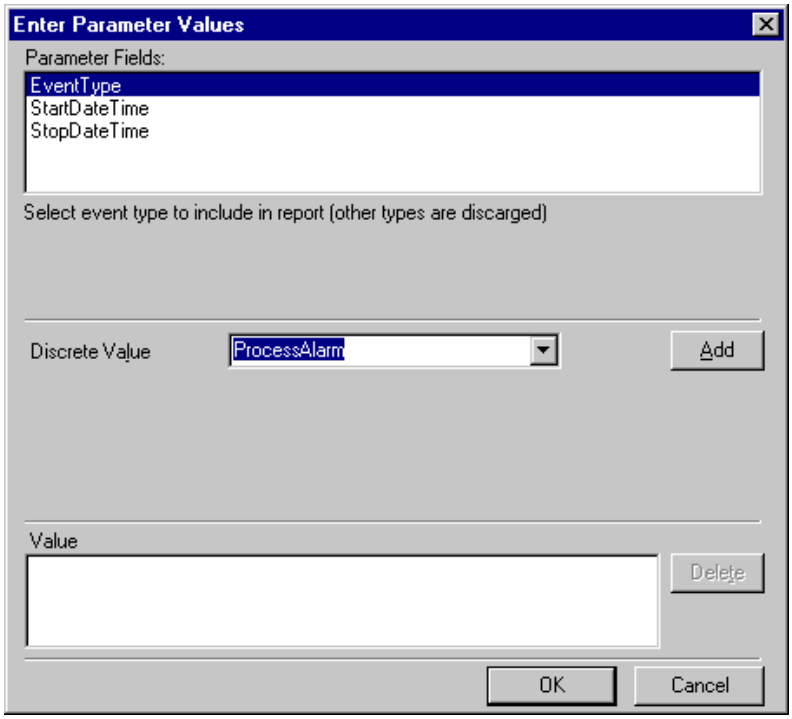
To generate the report do as follow.

Enter the tagname in the Discrete Value box, and press the add button. Several tagnames can be added and included in the report. Valid tagnames are existing tagname defind in AutroOS. A wildcard "*" can be used to select a groupe of tagnames. E.g. DACG* will include all tagnames starting with DACG in the report.

Select Start and End date for the report. For more information please refer to the chapter Setting reporting period - fixed time span

Press Ok to generate the report.

Select on event types.



Event type report will include all events of a given event type for the selected start and end date for the report.

To generate the report do as follow.

Select the Event type in the Discrete Value box, and press the add button. Several eventtypes can be added and included in the report. Valid event types are process alarm, system alarms, operator messages, process messages and system messages.

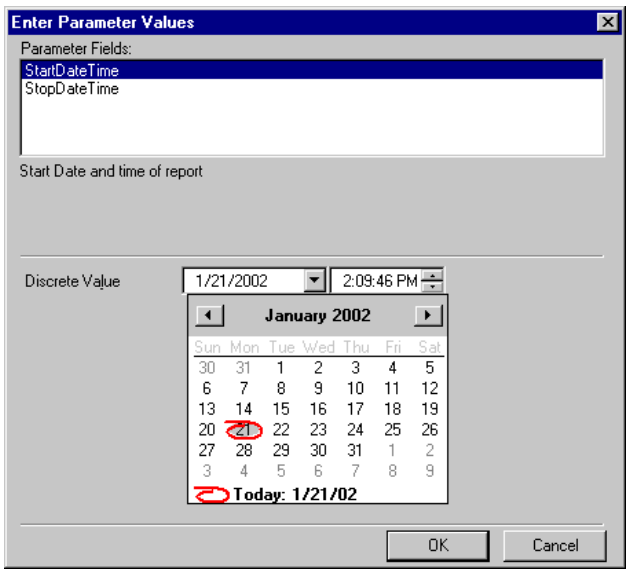
Select Start and End date for the report. For more information please refer to the chapter Setting reporting period - fixed time span

Press Ok to generate the report.

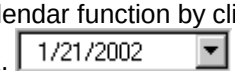
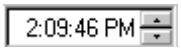
8.3.3 Setting reporting period - fixed time span

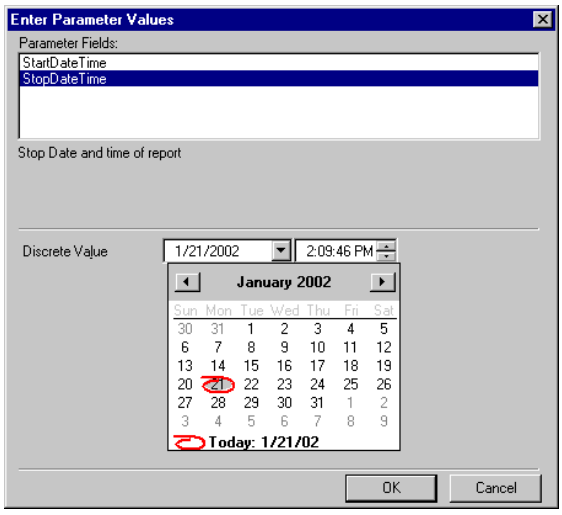
All reports must include a fixed start and stop date/time for the report periode.

Running these reports automatically launches a similar dialog box:

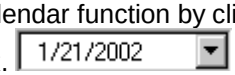


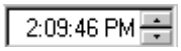
Setting the start date.

- Make sure that StartDateTime is selected in the parameter field.
- Activate the calendar function by clicking on the arrow in the date select box.  for selecting the start date for the report.Use the left or right arrow in the calendar to select other months.
- Select the time select date box and use the up/down arrow  to select the start time for the report.



Setting the end date for the report

- Make sure that StopDateTime is selected in the parameter field.
- Activate the calendar function by clicking on the arrow in the date select box. 

for selecting the end date for the report. Use the left or right arrow in the calendar to select other months.
- Select the time select date box and use the up/down arrow 

to select the end time for the report.

8.3.4 Report popup window

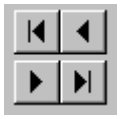
The report popup window is a resizable pop-up window floating on top of the image window. The window contains only one generated report, but several report popup windows can be displayed simultaneously.

8.3.5 Report title

The window title identifies the report by name and origin.

8.3.6 Report popup window toolbar

All report specific functions in the the report popup window are accessed from the window toolbar:



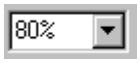
The report popup window displays the report, a page at a time. Using the navigation buttons, you can move to the beginning or end of the report, or you can move backwards and forward through the report a page at a time.

The page indicator specifies the currently displayed page and the total number of pages in the report. Upon generation, the page indicator does not fetch the total number of pages in the report. However, as long as the last page is not displayed, a '+' sign is added to indicate that there are more pages.

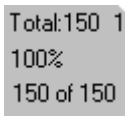
The stop button is available while data request is in progress only: I.e. during report generation and paging through very long reports. Clicking the button, stops the current data request.

Clicking the printer button launches the common windows print dialog box. The system default printer is automatically selected.

Clicking the export and mail button let you specify the export file format and destination path. Exported reports can be attached to mail messages.



The zoom combo box let you specify the zoom factor for the report page. It does not affect page length or window size.



The report status field reflects the number of process variable values fetched from the ODBC compatible data source. The number increases while report generation is in progress.

8.3.7 Sending a report as a mail attachment

Proceed as follows to send a report as a mail attachment:

1. Display the generated report in a Report popup window.
2. Select the button in the toolbar.
3. In the **Export** dialog box: Select an appropriate file format from the list box.
4. In the **Export** dialog box: Select the mail destination that matches the mail system where you have an account. The following mail systems can be handled: Microsoft Exchange, Microsoft Outlook, Lotus Notes.

9. Trend System

The Trend system is used for presentation of trends. It uses split window mechanisms to create and present one or several trends as separate panes in a trend image. Each trend may contain one or several trend curves.

The AutroOs Trend System contains functions for controlling the displaying, creation and appearance of trends.

This section contains descriptions of the AutroOs Trend System main features.

9.1 Trends

A *trend* is a presentation of one or several *trend curves* in a scaled axis system. You can both configure the trend with its contents and operate on the displayed trend by using a dedicated *trend context menu*. This context menu applies to the trend from which it was launched (this is significant when more than one trend is displayed simultaneously).

9.1.1 Trend presentations

There are two different types of trend presentation:

- Trend Image (ref. 9.3.3), which fills the main view area and may comprise several trends contained in separate panes. You can add, split or merge trend panes by using splitter window techniques.
- Trend Popup (ref. 9.10), which comprise a single trend in a re-sizeable popup window. The popup remains displayed irrespective of the view selected and can be positioned anywhere within the main view area.

Both trend presentations have a context menu that you can use to control their appearance.

9.1.2 Trend types

There are two trend types:

- Time Trend (ref. 9.3.1), which shows the development of single process values with the progress of time.
- XY Trend (ref. 9.3.2), which shows the correlation between two process values within a defined time span.

9.1.3 Trend data sources

The type of data source for trends:

- **Current value subscription**, which is a subscription of a process variable, i.e. the current value of module terminal or a 'logable' parameter.

Trend curves with a current value subscription as the only data source will initially be empty.

A trend curve will normally display data merged from several sources simultaneously.

9.1.4 Dynamic and static modes

There are two types of trend presentation modes:

- **Dynamic mode.** When a trend is launched, it is by default displayed in dynamic mode. The process value history is read from an AutroSafe Panel (if time series has been defined) and new values are automatically appended to the trend curves as they are produced.
- **Static mode.** The operator may choose to enter the static mode to be able to inspect the process value history more carefully. In this mode, new values will not be appended to the curves and the display will be frozen.

9.1.5 Trend main features and functions

The main features and functions available to the user in order to select trends and control the trend appearance are the following:

Axis controls	Functions used to control the zoom-and-pan axis of the displayed trend.
Curve focus	A function used to select trend curves for operation.
Measurement ruler	A tool for reading the exact process values and time stamps.
Multiple curves	A feature that allows several curves of same type in one trend.
Property dialog boxes	Lets you configure the trend appearance in accordance with your needs.
Temporary trends and curves	Lets you configure trends and trend curves for temporary use.

9.2 User interface

The AutroOs Trend System user interface provides the following functionality.

9.2.1 Toolbar

Trend Images are provided with a standard AutroOs toolbar. The commands are described as a part of the **OS standard toolbar** (ref. 10.2.2).

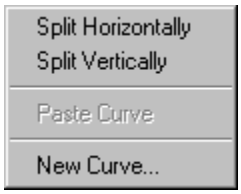
9.2.2 Trend specific command on the main menu

In Trend Images, one trend specific command - **Layout Mode** (ref.0)- is provided on the **File** menu. This command allows you to split and resize trend panes.

9.2.3 Context menus

The contents and appearance of a trend can be controlled by using its context menu. The commands contained in the trend context menu depends on:

- If **Layout Mode** is toggled on or off
- If a new image is displayed



The leftmost figure shows the standard trend context menu. The two uppermost commands are only provided when the **Layout Mode** command is toggled on.

The rightmost figure shows the trend context menu when an empty trend is displayed.

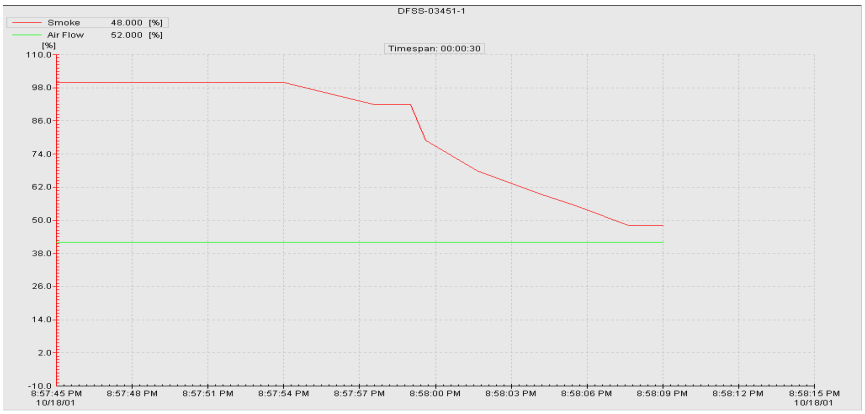
9.3 Axis controls

The trend axis controls (scroll bars with zoom buttons) allow the trend axis to be zoomed and panned.

9.3.1 Time Trends

Time Trends have a vertical value-axis scroll bar that applies to the amplitude of the curve in focus and a horizontal time-axis scroll bar that is common to all curves.

An example of axis controls for a Time Trend with a dynamic presentation is shown in the following figure:

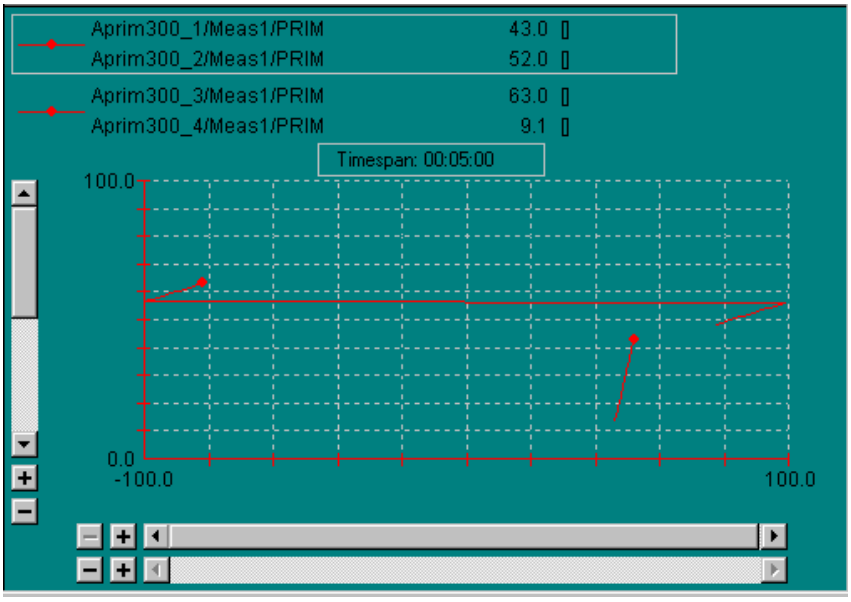


The Time Trend does not show the full range along the vertical value-axis and therefore its scroll box doesn't fill the scroll bar. Because this trend has a dynamic presentation, the time-axis scroll bar is unavailable, i.e. it does not contain a scroll box.

9.3.2 XY Trends

XY Trends have a vertical value-axis scroll bar that applies to the Y process variable and a horizontal value-axis scroll bar that applies to the X process variable. It also has a horizontal time-axis scroll bar that is common to all process variables.

An example of axis controls for an XY Trend with a dynamic presentation is shown in the following figure:



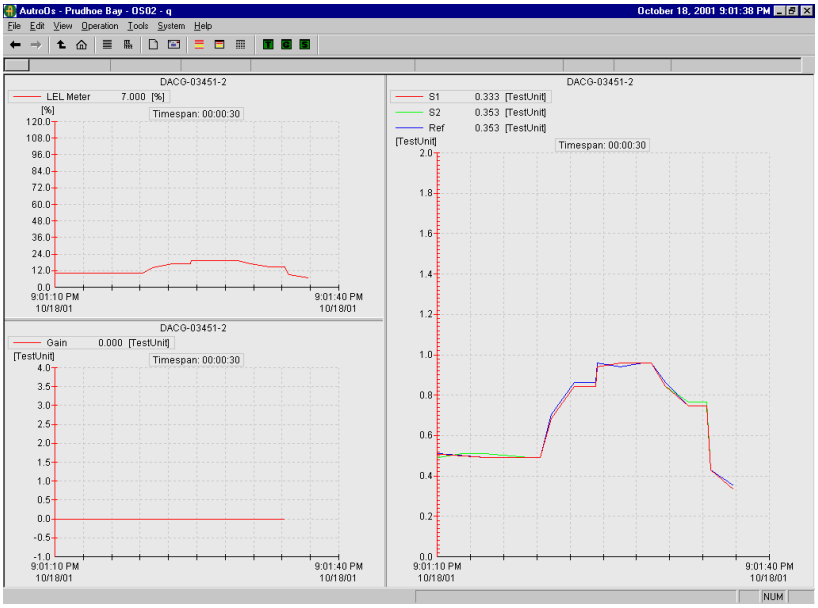
The XY Trend has been zoomed in on the Y value-axis and therefore the vertical value-axis scroll bar contains a scroll box that is shorter than the length of its corresponding scroll bar. Because this XY Trend has a dynamic presentation, the time-axis scroll bar is unavailable, i.e. it does not contain a scroll box.

9.3.3 Trend image

A Trend image fills the main view area. It may contain several trends, which may be a mixture of XY Trends and Time Trends. Each trend may in its turn contain several trend curves.
A Trend image can be displayed by performing one of the following actions:

- Selecting a Trend Image in the **Navigator** dialog box.
- Clicking a trend **hotspot** (in Generic and Process images).
- Selecting the **Trend ->** command in the **context menu** of a module (in Process images).

An example of a Trend image containing four trends is shown in the following figure:



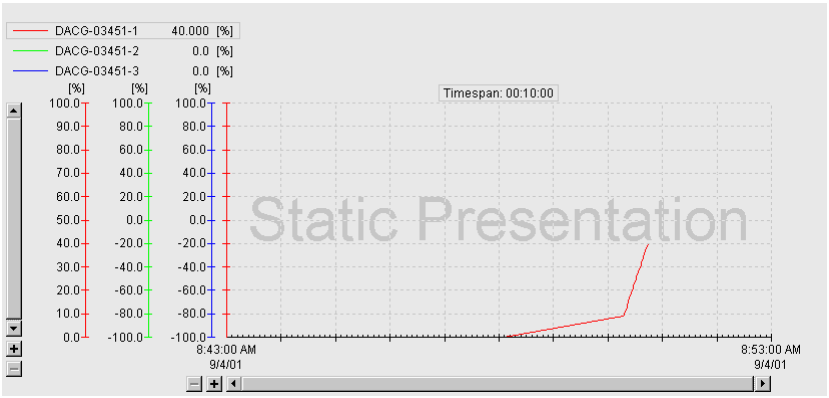
9.3.4 Scroll Bars

Value-axis scroll bar
You zoom in (decrease the value scale-range) with the plus (+) button and zoom out (increase the value scale-range) with the minus (-) button at the end of the scroll bars.

Time-axis scroll bar
In a dynamic presentation only the plus (**+**) and minus (**-**) buttons at the end of the time-axis scroll bar are available which means you can only zoom in and out.

In a static presentation, the time-axis scroll bar will only be available if all trend curves in the trend have access to time series data stored on a AutroOs. This scroll bar will then allow you to pan backwards and forwards in time.

An example of the available axis controls for a Time Trend in the static mode is shown in the following figure:



9.4 Curve focus

Commands and functions in the AutroOs Trend System that operates on single trend curves require that the desired curve is put in focus. Examples of such single curve operations are:

- cutting, copying and pasting trend curves
- value axis control
- setting curve attributes in the trend propery dialogs

Putting a trend curve in focus will affect the layout of the trend in the following ways:

- the scale of the curve in focus will be superimposed on the trend value axis.
- the legend of the curve in focus will, if shown, have an outline box around it.
- the value axis scroll bars will, if shown, apply to the curve in focus.
- the measurement ruler will apply to the curve in focus
- the minimum, mean and maximum values will, if shown, apply to the curve in focus.

A trend curve can be put in focus as follows:

- Point to the curve, and then click it.

  Note ! A digital curve can be more difficult to select because the values are defined at the corners. In this case point to a corner value and click it.

- If its curve legend is displayed, click it.
- If a separate axes presentation is displayed, click the relevant value axis.

9.5 Measurement ruler

The measurement ruler is a tool that enables you to read the exact values of the trend curve in focus. It will display the time and value for the curve at the intersection point between the curve and the measurement ruler at the top of the ruler.

The measurement ruler is displayed by pointing in the trend and dragging the cursor with the left mouse button held depressed. As soon as you start to drag the cursor it changes to a vertical ruler and shows the value of the process variable and the correlated time in a measurement box attached to the top of the ruler. You can move the ruler both forwards and backwards along the horizontal time axis. However, the updating of the trend curve on the screen is frozen while the ruler is being displayed.

The measurement ruler only shows the trend values points, i.e. it will not interpolate the values between the points. Thus, the ruler jumps from point to point when dragging.

A typical Time Trend measurement ruler is shown in the following figure.

9.6 Multiple-curve trends

It is possible to have several trend curves in the same trend provided that they are all the same trend type. A mixture of Time and XY Trend curves is not possible.

Each curve overlays a scale on the Y-axis of the trend and on the X-axis for XY Trend curves. The trend presentation can be changed to show only one scale or all scales simultaneously. Each curve and its scale axis are given unique colours to make it easy to distinguish the curves from each other.

9.7 Property dialog boxes

The AutroOs Trend System has two trend property dialog boxes:

Time Trend Properties dialog box (ref. 0)
XY Trend Properties dialog box (ref.11.8.12).

These property dialog boxes are used to change the curve definition and presentation of a trend.

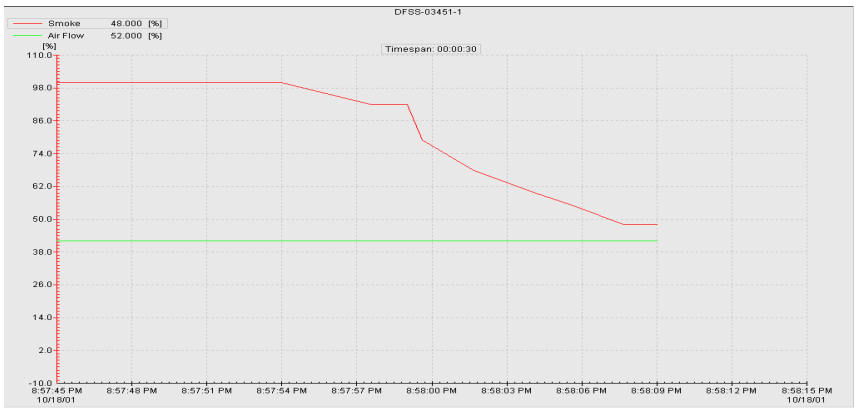
9.8 Time Trend

A **Time Trend** curve is a plot of the values for a single process variable with the progress of time. Each time the value of the process variable is read, it is time stamped and added to the right-hand end of the curve.

The updating of the curves on the screen is optimized in order to produce 'nice' numbers along the time axis. The updating rate also depends of the trend time span, which is printed on the trend.

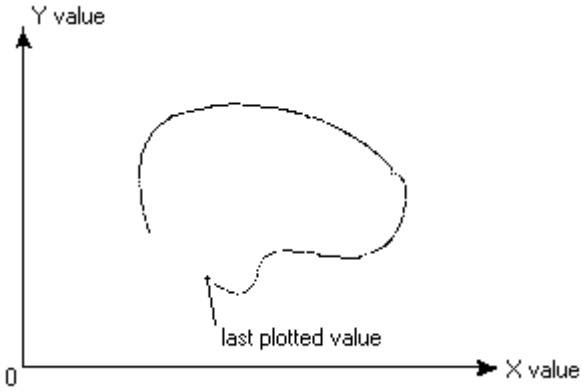
A Time Trend can contain a maximum of 10 curves. It will have separate scales overlaid on the Y axis and a common time that shows the same time resolution for all curves on the X axis.

The following figure shows a Time Trend with four curves and all scales displayed.

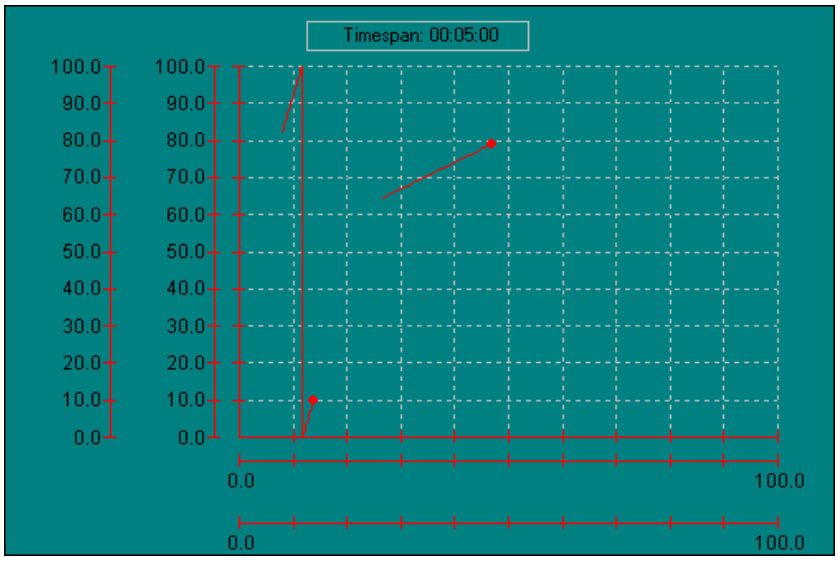


9.9 XY Trend

An **XY Trend** is a plot of time correlated values from two different process variables (X and Y) for a defined time span as shown in the following figure:



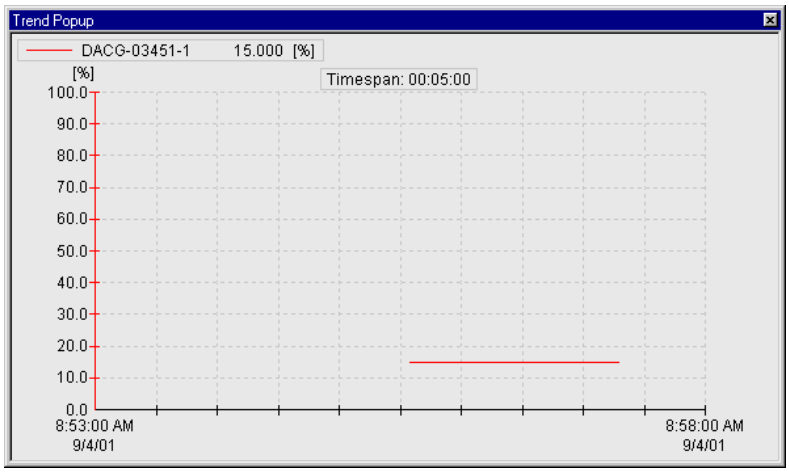
An XY Trend can contain a maximum of four curves. Each curve has separate scales overlaid on the Y and the X axes. In addition up to four user defined auxiliary curves and a pair of alarm limit lines can be displayed for each curve. The following figure shows an XY Trend with two curves and four axes, an axis for each of the four process values:



9.10 Trend Pop-up

A Trend Popup is a stand-alone window that contains a single trend. It can be launched from a Trend Image by using the **Make Popup** (ref. 11.8.5) command.

An example of a Trend Popup is shown in the following figure:



This window can be moved and re-sized, and will remain displayed even if you display another image type (ref. 6.9) in the main view area.

10. Web images

The Web images component lets you view configured web images on the intranet - and, if applicable, on the Internet.

10.1 Main features

This component provides web images that display intranet or Internet web sites.

During normal operation, web images containing the appropriate webs or web sites can be selected by using the navigator, the historical list or hotspots. The web site can then be viewed and printed.

In OS configuration mode, new web images are configured by typing in the URL address of the appropriate intranet or Internet web site in a dialog.

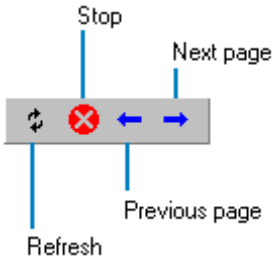
10.2 User interface

10.2.1 Main menu and standard toolbar

These standard interface parts are always displayed. The Last alarm line is not available in Web images.

10.2.2 Toolbar

The Web image specific toolbar comprises of four command buttons, which are shown in the illustration below.



These commands apply to the displayed web image only.

10.2.3 Context menus

The Internet Explorer context menus are by default not available. However, in your application, all or some of these commands may be enabled.

10.2.4 Status bar

On the status bar, either of the following is printed:

- The name of the command buttons on the toolbar, which the cursor points to,

  or

- The target of the web image hotspot, which the cursor points to.

10.3 Using the Web Images

10.3.1 Viewing Internet/intranet web sites

To view web sites and their pages, proceed as follows:

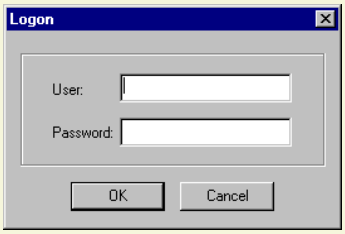
1. Display the appropriate web image by using the navigator, the historical list or hotspots as applicable.
2. Use the navigation means of the displayed web pages as applicable. Note that the context menus of the Internet Explorer are not available.
3. Use the **Next** (ref.11.9.3), **Previous** (ref. 11.9.4), **Stop** (ref. 11.9.6)and **Refresh** (ref. 11.9.5)commands on the web image toolbar to perform operations on the displayed web site/pages.
4. Note that the standard AutroOS **Previous** and **Next** navigation buttons, which are located on the left side of the toolbar, only apply to AutroOS images.
5. To print the displayed web page: On the **File** menu, select **Print image...**. The **Print** dialog box is displayed. Select printout options as applicable and click the **OK** button. The web page is printed on the specified printer.

11. Reference information

11.1 Access Control System

11.1.1 Logon dialog box

Logon dialog box



The **Logon** dialog is a modal dialog. Valid user accounts have a registered user and password combination. Upon entering a valid combination, the dialog closes and the user is logged on. Otherwise, the dialog box remains displayed and a message box advices you to try again. It is not possible to change focus until a correct user and password combination is entered.

If you don't remember your user name and password combination, contact the system administrator.

User:

The **User** input box must contain a valid user name.
When the dialog appears, the **User** text box contains the name of the latest logged on user or, upon start up of the OS, the text box contains the defined default user for the OS in question.

Dependent of the configuration settings, you can enter a user by selecting from a dropdown list that contains all registered users, or type the name in the text box.

Password:

A password must be entered. The password text box is case insensitive.

11.1.2 Log Off … command

Log Off... command

This command lets you log off in order to lock the OS, or to log on as another user.

Method

1. On the **File** menu, click **Log Off...**.
2. The **AutroOs** dialog box is displayed. Confirm the logoff.
3. The **Logon** dialog box is displayed. Use this dialog box to log on again.

11.1.3 Exit

Exit... command

The **Exit...** command invokes the **Shut Down** dialog box.

Method
On the **File** menu, click **Exit...**.
The **Shut Down** dialog box is displayed.
Either.
a Select the 'Shut Down?' option. Your OS is shut down.
or
b Select the 'Log on as different user?' option. The **Logon** dialog box is displayed, in which you must type in your new user name and password.
If option **b** is selected, you are now logged on as the new user.

11.2 CCTV Flame Detectors

11.2.1 Ethernet Video

The Ethernet video

The Ethernet video provides live video images from the flame detector cameras, distributed on the network, in a popup window.

With the channel button the video source can be changed, and pictures from different cameras can be displayed.
It is possible to record a series of still pictures from the camera on the harddisk. With the Moviemaker program it is possible to generate a video file from the series of pictures that has been saved.

Please observe. Only one pop-up window is available. There is no possibility to activate more than one pop-up window with live images.

11.2.2 Video Overlay

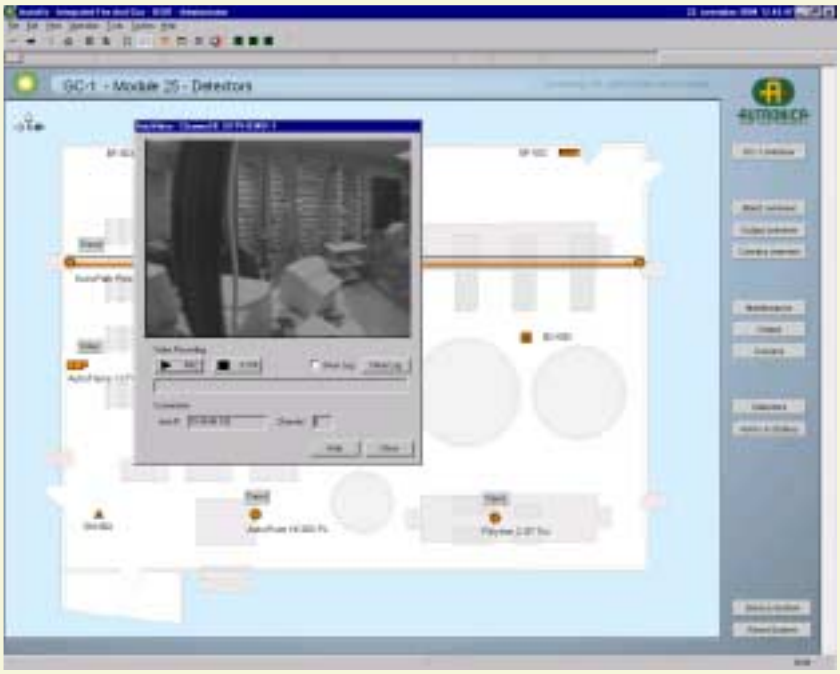
Video overlay

The video overlay is a function in the flame detector cameras, displaying the areas of a fire or the detected areas in the picture.

11.2.3 Video Pop-up

Video Popup

Live video images will automatically pop up in in a pop up window if fire is detected.



11.3 Equipment System

11.3.1 Print Image command

Print Image command

This command allows you to print out the System Status.

Method

- The procedure for the usage of this command is described in the adjacent procedure section.

11.3.2 Show Only Errors command

Show only errors command

This command allows you to filter the information displayed in the right-hand pane so that only the stations with lost messages are shown.

This command is toggled on and off.

Method

- Display the **Net Status** tab context menu and toggle this function on or off.

11.3.3 System Events... command

System Events... command

This command allows you to view the event popup for the selected AutroSafe station.

Method

- The procedure for the usage of this command is described in the adjacent procedure section - Viewing Station status images.

11.3.4 Update Statistics command

Update Statistics command

This command allows you to update the statistical information displayed in the right-hand pane of the **Net Status** tab.

Method

- The procedure for the usage of this command is described in the adjacent procedure section.

11.4 Event System

11.4.1 Acknowledge command

Acknowledge command

The **Acknowledge** command allows the user to confirm that he has observed the alarm indication announced through the AutroOS system.

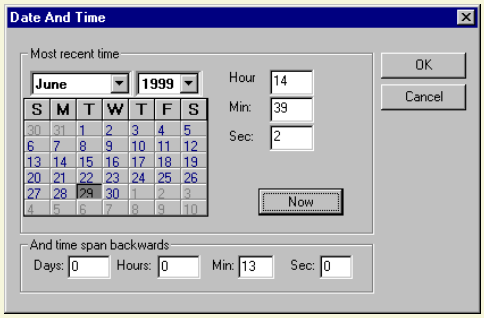
The **Acknowledge** command is always available in the **Operation** menu.
The **Ack** command is available in the context menu of the Last alarm line whenever an alarm is unacknowledged.

In addition, the icon is available in the event toolbar in the event image and the event dialog.

The effect of the **Acknowledge** command depends on the current image and current selection. Refer to the Alarm acknowledgement description.

11.4.2 Date and Time dialog box

Date and Time dialog box



Most recent time group box

The time span is defined relative to a specified date and time. The 'most recent time' is the reference. This group contains controls for setting the most recent time.

Now sets the most recent time to the current time.

If you want another reference, use the calendar, and the **Hour**, **Min** and **Sec** controls.

And time span backwards group box

As the reference is the **most recent time**, the time span is defined in days, hours, minutes and seconds backwards in time. Use the **Days**, **Hours**, **Min** and **Sec** text boxes.

11.4.3 Delete command

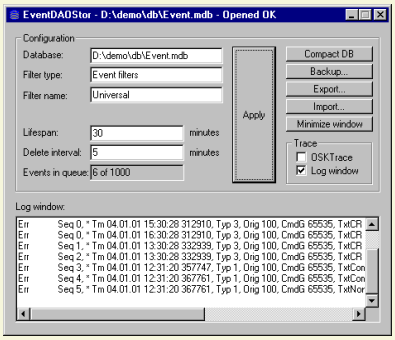
Delete command

The **Delete** command removes rows with alarms in acknowledged normal state from the dynamic and static alarm lists.

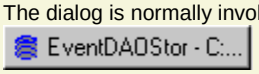
The command is available whenever the SysConf parameter Sections/Global/EventSystem/AutoDelete is 'False'. Whenever 'True', the delete function is executed implicitly by the system.

11.4.4 Event DAOStor dialog box

Event DAOStor dialog box



No user rights are required, no configuration mode is required.

The dialog is normally invoked and minimized upon system start. To open it, click the 

icon in the start bar.

If the icon is not found, run the command: `EventDAOStore.exe <OSname>`

Configuration

The **Configuration** group comprises text boxes that reflect the current settings for the event database. You can change these settings by editing the text boxes. To make your changes applicable, you must **Apply** them.

Database:
The **Database** input box specifies the path and filename for the event database.

Filter type and filter name:
The **Filter type** and **Filter name** input boxesc specify the applicable filter. You can set any filter but the universal event filter provides the most complete log.

Lifespan:
The text box specifies the maximum lifespan for an event. Events older than the actual lifespan, are subject for deletion as the current delete interval expires.

Delete interval:
The delete interval defines how often a delete action is run. E.g. If the delete interval is set to 60 minutes, all events older than the defined lifespan, are deleted every hour. **Note!** If the delete interval is set to '0', the delete action is never run and all events remain in the database.

Events in queue:
The text box the number of events that are currently queued and the maximum size of the input buffer. The input buffer caches events that occur while the database is closed. As the database opens again, all queued events are stored. If the buffer is filled up, before the database is opened, events are written to a file and automatically imported as the database re-opens.

The command buttons comprised in the **Configuration** group are:

Compact DB
Clicking the **Compact DB** command button removes all empty rows from the database. Compacting is done automatically according to specific criteria, but from this button, you can start the action any time. In general, compacting improves performance.

Back up...
The **Back up...** command button invokes a standard directory browser dialog where you can specify the path and filename for the backup file. The default backup path is specified in the System Configuration database parameter Section\<Station>\EventSystem\EventStore\BackupLocation.

Export
The event database can be exported explicitly by clicking the **Export ...** button. A directory browser is invoked, allowing you to specify the patch and filename for the export file. The export format is ASCII format, using ';' and 'CR' delimiters.

Import...
Clicking the **Import ...** button invokes a standard directory browser dialog to specify the directory where the files to be imported are stored. Note that all files with .ue extension are imported.

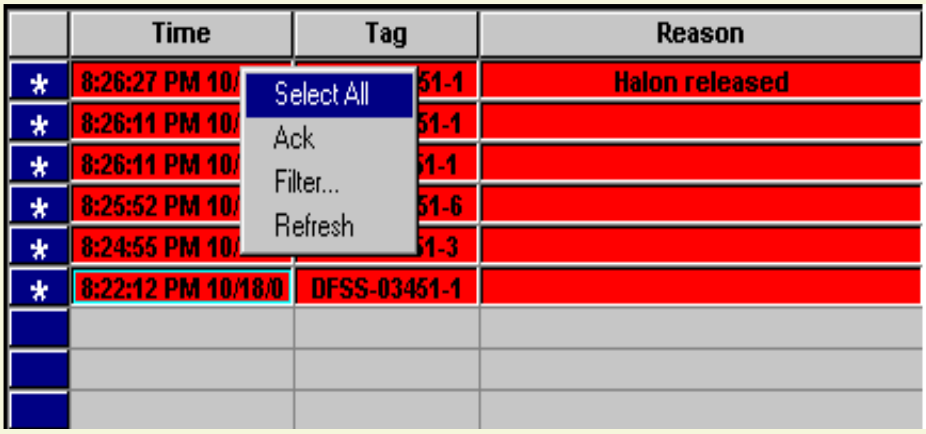
Minimize window
It is important not to close the EventDAOStor dialog, as this would terminate event logging. Therefore an explicit Minimize window button is included.

The **Trace** group comprises comprises check boxes to specify where the trace information is send. The purpose is to get information for debugging.

11.4.5 Select all command

Select all command

Select all is an option in the context menu of event and alarm pages.
The function let you select all currently displayed rows in the page. Rows that are not in the display window, are not selected.



11.5 Operator Station

11.5.1 About AutroOs... command

About AutroOs... command

This command displays the **About AutroOs** dialog box, which provides you with information on this release of AutroOs.

11.5.2 Add ▶Hotspot... command

Add ▶Hotspot... command

The **Add ▶Hotspot...** command lets you add and specify a hotspot. The command implies the following tasks:
Specification of the position and size of the hotspot.
Specification of the image to be associated.
Specification of the hotspot content and style.

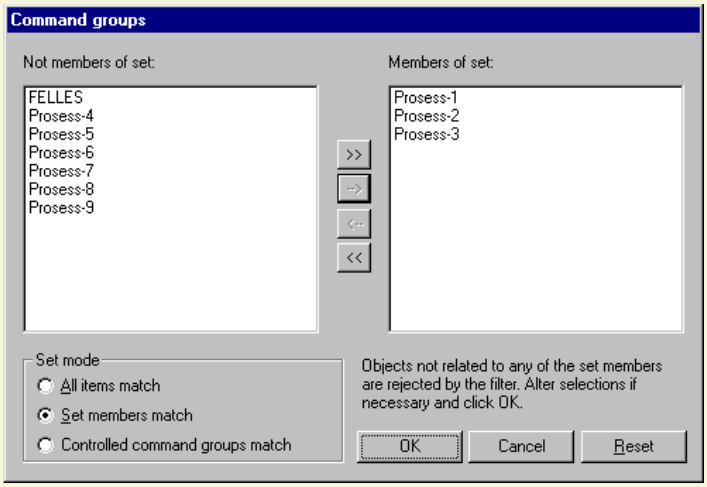
Prerequisites
The OS configuration mode must be selected.
A Process image must be displayed in the main view area.

Method
On the **Edit** menu, point to **Add** and click **Hotspot...**.
The cursor changes shape. Drag the boundaries of the new hotspot.
The **Hotspot Editor** dialog box is displayed, in which you define the hotspot.
If you want, you can change the size and position of the hotspot either by dragging, or by typing in its adjusted co-ordinates in the dialog box.

11.5.3 Command groups dialog box

Command groups dialog box

This dialog box lets you specify the command groups, to which the wanted modules belong, as search criteria. All modules that match the search criteria, are listed for selection and display.



The **Not members of set** list box lists all command groups that will not be included in the search.
The **Members of set** list box lists all command groups that will be searched for. To select the command groups that are to be included in the search, and those that are not to be included, use the arrows between the list boxes.
The **Set mode** option boxes
The **All items match** option lets all command groups of the entire configuration to be included in the search. All the command groups are automatically transferred to the **Members of set** list.
The **Set members match** option allows only the command groups that are comprised in the **Members of set** list box to be included in the search.
The **Controlled command groups match** option allows only search for modules among the modules configured on the command groups that your OS group commands. When this option is selected, only the appropriate command groups are listed in the **Members of set** list.

The **Reset** button is used to include all command groups in the **Members of set** list box.

11.5.4 Historical Navigation Arrow Buttons

Historical Navigation Arrow Buttons
(Previous and Next buttons)

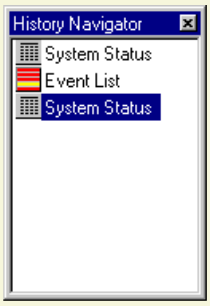
The Historical Navigation arrow buttons are the **Previous** button (left arrow) and the **Next** button (right arrow). Use these buttons to navigate between the previously displayed images.

The **Previous** button is used to display the image or view that was displayed previous to the currently displayed image or view. It is available as soon as you have selected more than one image or view during this session of running the AutroOs configuration. To display new images or views, use the **Navigator** dialog box. The sequence of image and view selections can be observed in the **History Navigator** dialog box.
The **Next** button is used to display the next image or view in the sequence of previously displayed images and views, in which the currently displayed image or view is comprised. This button is available when you have:
Selected two or more images and views during this session of running the AutroOs configuration,
and
selected the **Previous** button once, or navigated by using the **History Navigator**.
The sequence of image and view selections can be observed in the **History Navigator** dialog box.

11.5.5 History Navigator dialog box

History Navigator dialog box

The **History Navigator** dialog box lets you select another image or view from the historical list of previously displayed images and views for display in the main view area.
The **History Navigator** dialog box is available by either:
Choosing the **History Navigator** command in the **View** menu
or
Clicking the **History Navigator** button in the tool bar.



The **History Navigator** dialog box shows a list of all the images and views that previously has been selected in the **Navigator** dialog box during the current session of running the AutroOs. The last image or view that has been selected is added to the list in the lowermost position.
You can select any image or view contained in the **History Navigator** dialog box list for display in the main view area.
A grey, semi-transparent rectangle shows which image or view that is currently displayed in the main view area.
The **History Navigator** dialog box is available by selecting the **History Navigator** command in the **View** menu, or the **History Navigator** button in the tool bar.

Optionally, you can also navigate between the previously displayed images and views in accordance with the same sequence as displayed in this dialog box by using the historical navigation arrow buttons.

See also:
Navigator dialog box

11.5.6 History command

History command

This command displays a historical list of displayed images, from which you can select an image for display. The historical list of previously displayed images shows the chronological order in which the images was selected and displayed.

Method:
Either:
On the **View** menu, click **History**.
or

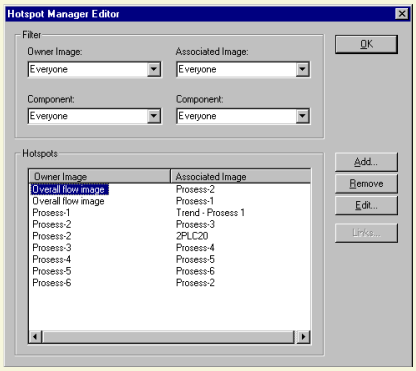
On the toolbar, click .
The **History Navigator** dialog box is displayed. Select the image you want for display from the list of previously displayed images.

11.5.7 Hotspot Manager Editor dialog box

Hotspot Manager Editor dialog box

The **Hotspot Manager Editor** dialog box lets you:
Acquire information on hotspot owner images and associated images
Add, remove and edit hotspots.
Using this dialog box assumes that you have OS configuration privileges, and that the OS Configuration mode is selected.

The illustration below shows a specific situation where all the hotspots of the current AutroOs application configuration are listed.



The **Filter** group box
This group box contains drop-down list boxes that lets you choose among the hotspot owner images, the associated images and the components these images belong to. The resulting hotspot information will be displayed in the **Hotspots** group box below.
The **Owner Image** drop-down list box. This drop-down list box provides a list of all the names of the images that are hotspot owner images. The list of images in this list box is sensitive to the selection made by you in the **Component** drop-down list box located below this drop-down list box.
The **Associated Image** drop-down list box. This drop-down list box provides a list of all the names of the images that are hotspot associated images. The list of images in this list box is sensitive to the selection made by you in the **Component** drop-down list box located below this drop-down list box.
The **Component** drop-down list boxes (two places). A **Component** drop-down list box provides a list of all the components that the owner image respective the associated image belongs to.
When you select the 'Everyone' option, the list in the respective drop-down list box above this box will contain all the hotspot owner images/associated images comprised in the current AutroOs application configuration.
When you select a specific component (only Process images can be hotspot owner images), the lists in the respective drop-down list boxes above will contain all the hotspot owner images/associated images in the current AutroOs application configuration that belong to this component.

The **Hotspots** group box
This group box contains a list box with two columns that provide information on your AutroOs application configuration hotspots, which either:
Match the requirements you have specified by your selections in the four drop-down list boxes in the **Filter** group box above,
or
Are contained in the image you previously selected in the **Image Manager** dialog box before you displayed this dialog box.
The **Owner Image** column. This column displays the owner images of all the hotspots that have been selected in either of the ways described above. You can select a hotspot owner image from this list.
The **Associated Image** column. This column displays the associated images of all the hotspots that have been selected in either of the ways described above, and which are listed in the **Owner Image** column. You cannot select an associated image from this list.

Examples of usage
In the following, some examples of the usage of the functions contained in the two group boxes above are provided:
To list all the hotspots in the current AutroOs application configuration, ensure that the option **Everyone** is selected in all the four list boxes in the **Filter** group box. All the owner images and the associated images of all the hotspots are now listed in the columns of the **Hotspots** group box.
To list all the hotspots originating from a specific image, select the image name in the **Owner Image** drop-down list box, eventually select the component name in the **Component** drop-down list box below. Ensure that the option **Everyone** is selected for both the **Associated Image** drop-down list box and its the **Component** drop-down list box. All the hotspot connections having that image as the owner image are now listed in the columns of the **Hotspots** group box.
To list all images in a specific component that are the destinations (associated images) for hotspots in the current AutroOs configuration, ensure that the **Everyone**-option is selected for the **Owner Image** drop-down list box, its **Component** drop-down list box and the **Associated Image** drop-down list box. In the **Component** drop-down list box below the **Associated Image** drop-down list box, select among the component categories. E. g., if **Event View** is selected, all the hotspots in the current AutroOs application configuration that have any of the Event images as an associated image, are listed in the **Hotspots** group box.

The **command buttons** of this dialog box are the following:

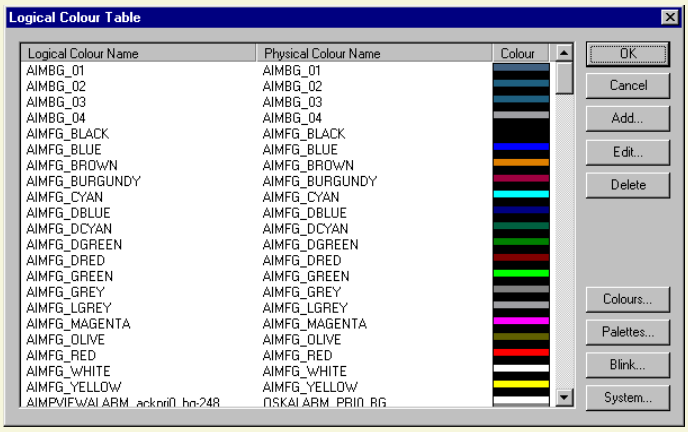
Add	Use this button to create a new hotspot. An owner image must be specified - either in advance in the **Filter** group box, or in the **Image Manager Browser** dialog box, which is displayed if no owner image has been specified prior to clicking this button. When an owner image has been specified, the **Hotspot Editor** dialog box is displayed.
Remove	Use this button to remove a hotspot. The hotspot to be removed must first be selected in the **Owner Image** column in the **Hotspots** group box.
Edit	Use this button to edit an existing hotspot. The hotspot to be edited must first be selected in the **Owner Image** column in the **Hotspots** group box. The **Hotspot Editor** dialog box is displayed.
Link	This button is not available

Links	This button is not available.

11.5.8 Logical Color Table dialog box

Logical Color Table dialog box

This dialog box lets you view, add, edit and perform other operations on your AutroOs configuration display colour settings.



Logical Colour Name, Physical Colour Name and Colour list box
This list box shows the names of the colours currently defined in the logical colour table together with the names and visual examples of their mapped physical colour.

The buttons described below are only available in the OS Configuration mode when you are logged on as a member of the systems user group.

Add... button
Clicking this button lets you add a new logical colour to your AutroOs configuration by typing in the new name in the displayed **New Logical Color** dialog box.

Edit... button
This button lets you edit a selected logical colour by displaying the **Physical Color Selection** dialog box, in which you can select a new physical colour for the

Delete button
This button lets you delete a selected logical colour.

Colours... button
This button lets you edit the palettes used in your AutroOs configuration. The **Physical Color Table** dialog box is displayed. Select new colours in this dialog box.

Palettes... button
This button lets you enable or disable each of the colour palettes that are defined in your AutroOs configuration by displaying the **Colour Palettes** dialog box.

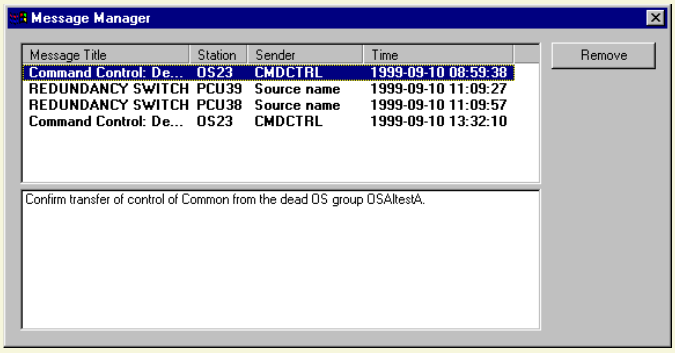
Blink... button
This button lets you define new blink rates for your AutroOs configuration by displaying the **Color Blink Rate** dialog box, in which these new settings are made.

System... button
This button lets you edit the colours used on system entities like background, scroll bars etc. by displaying the **System Color Configuration** dialog box, in which the new settings and selections are made.

11.5.9 Message Manager dialog box

Message Manager dialog box

This dialog box lets you view and remove messages issued by the function modules contained in the various AutroSafe panels and OSs of your AutroOs configuration.



Upper list box with four columns
The details of the received messages are displayed in this list box. Each message has four components, which are displayed in the following four columns:

Message Title column. The message title is displayed here, e. g. REDUNDANCY SWITCH.

Station column. The name of the station (AutroSafe or OS) that has issued the message is displayed here.

Sender column. The name of the module or component configured on the station that sent the message.

Time column. The date and time the message was sent.

Lower list box without columns:
Selecting the details of a message (i.e. pointing at it and then clicking the left mouse button) displays the message text in the lower list box and makes the **Remove** button available.
Selecting the details of a different message changes the text of the previously selected message from bold to normal to indicate that the message text has been viewed (i.e. acknowledged). If a new message is received that is the same as one of those that are currently active, the **Message Manager** replaces the older message with the new one. Two messages are regarded as the same when their originator station number, name and unique identification are the same.

Remove button
Clicking the **Remove** button deletes the selected message and its details from the list boxes, and selects the details of the next message. If the details of the last message are selected when the **Remove** button is clicked, the details of the previous message are selected.

11.5.10 Message Manager... command

Message Manager... command

This command is used to view the **Message Manager** dialog box, which contains messages from the modules, DbServer and other OSs that are to be viewed and acknowledged by the operators.

Note that the **Message Manager** button on the tool bar has the following function. When a new message has arrived, this button blinks. When you click this button, the **Message Manager** dialog box is displayed. While this dialog box is being displayed, the **Message Manager** button is set and does not flash.

Method:
To display the **Message Manager**, proceed as follows:
Either:
On the **Tools** menu, click **Message Manager...**.
or

On the toolbar, click .
The **Message Manager** dialog box is displayed. Messages will be displayed in the upper list box. Unread messages are displayed with bold font weight, and messages that are read are displayed with normal font weight. To view a message, click on it.
The message text is displayed in the lower list box.
To remove messages, click the **Remove** button.

11.5.11 Navigator command

Navigator command

This command displays the **Navigator**, in which you select another image for display in the main view area. In OS Configuration Mode, you can also configure images by using the Navigator.

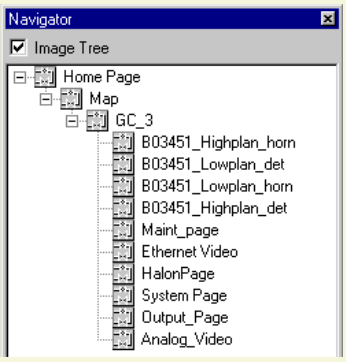
Method
Either
On the **View** menu, click **Navigator**
or

On the toolbar, click .
The **Navigator** dialog box is displayed. Select the image you want for display.

11.5.12 Navigator dialog box

Navigator dialog box
This dialog box provides you with different functions dependent of the mode selected.

Operational mode
In the operational mode, the **Navigator** dialog box lets you select images for display in the main view area.
To select another image for display, click its name in the list box.
To display all hotspot links from a top level image to associated images, open the sub structure by clicking the +button. To display the associated image, click its name.



11.5.13 Palette ▸command

Palette ▸command

This command lets you control the OS display illumination in order to obtain an illumination which is matched to the ambient light- and operational conditions:
Palette 0
Palette 1
Palette 2
Palette 3
Palette 4
Palette 5

This command provides a submenu containing the six options described above.
This command is available in the **System** menu.

Method
To choose the correct illumination, select the **Palette** ▸command, and select the relevant option from the submenu provided. The screen illumination is now automatically changed, and remains in this state until another option on this submenu is selected.

11.5.14 Select Time Zone... command

Select Time Zone... command

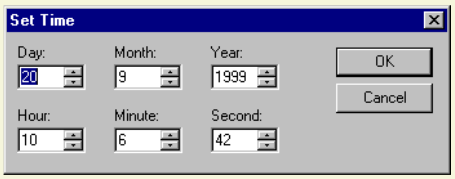
This command lets you change the AutroOs configuration time zone setting in order to adapt it to the local time.

Method
To change the time zone settings in your AutroOs configuration, proceed as follows:
On the **System** menu, click **Select Time Zone...**.
The **Set Timezone** dialog box is displayed. Select the required time zone.
The AutroOs configuration time zone is now changed, and will operate with these settings until a new time zone setting is selected by you.

11.5.15 Set Time dialog box

Set Time dialog box

This dialog box lets you change your AutroOs configuration system date and time.

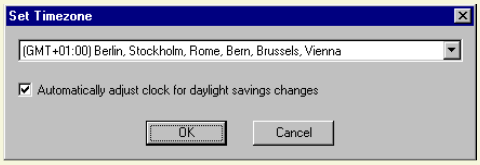


Change the values in the spin boxes either by clicking the up and down controls, or by selecting the appropriate values and then type in new values.

11.5.16 Set Timezone dialog box

Set Timezone dialog box

The **Set Timezone** dialog box lets you select a time zone for the AutroOs configuration to adapt its time setting to the local time.



Time zone option drop-down list box.
This list contains options for all GMT hours - GMT, GMT+1.00 through +12.00 and GMT-01.00 through GMT-12.00. In all options listed, actual cities are included. Select option from this list.
Automatically adjust clock for daylight savings changes check box. Select this box if automatically adjusted time is desired.

11.5.17 Standard and command control toolbar buttons

Standard and command control toolbar buttons

This section describes two types of tool bar buttons:
The Standard toolbar buttons
The Command Control toolbar Buttons.

Standard toolbar buttons
The standard toolbar buttons are described below. These buttons are displayed regardless of which image that is displayed in the main view area.

	Navigator arrow buttons.
	View History button. Refer to History Navigator dialog box.
	View Navigator button. Refer to Navigator dialog box.
	Message Manager button. Clicking this button displays the **Message Manager** dialog box that allows you to view and delete messages.

	Event View button. Clicking this button displays the **Event View**. This button is not available in the Event View.
	Event Popup button. Clicking this button displays the Event (Alarms) popup.
	Equipment View button. Clicking this button displays the Equipment View.

Command control toolbar buttons
The command control toolbar buttons are described below.

	Command Control Take button. Clicking this button displays the **Command Control Take** dialog box, in which you can specify which new command group your OS group shall control. This command is also available in the **Operation** menu in the menu bar.
	Command Control Give button. Clicking this button displays the **Command Control Give** dialog box, in which you can specify which other OS group your OS group shall transfer the control to. This command is also available in the **Operation** menu in the menu bar.
	Command Control Status button. Clicking this button displays the **Command Control Status** dialog box, which provides overview of all the command groups and the OS groups currently controlling them. This command is also available in the **Operation** menu in the menu bar.

11.5.18 Status command

Status command

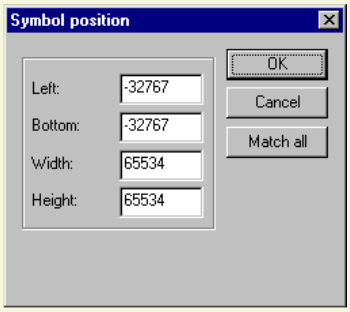
This command gives you access to a dialog box comprising of various functions regarding the setting and testing of operator panel lamps, as:
Lamp test
Light control
Manual lamp settings - on, off, flash, fast
Test mode on/off.

Method
On the **Panel** menu, click **Status**.
Edit the fields in the dialog box that is displayed, and use the operator panel command buttons to execute tests.

11.5.19 Symbol position dialog box

Symbol position dialog box

This dialog box lets you specify the area in which to search for module symbol positions. The tag names of all the modules with symbols located within this area are listed for selection and display.



The values in the four text boxes are AutroOs world map logical co-ordinates.

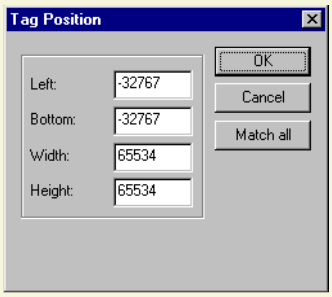
Left	The search area bottom left corner's x-coordinate.
Bottom	The search area bottom left corner's y-coordinate.
Width	The width of the search area.
Height	The height of the search area.

The **Match all** button resets the search area logical co-ordinate values to comprise the entire AutroOs, as shown in the figure above.

11.5.20 Tag Position dialog box

Tag Position dialog box

This dialog box lets you specify the area in which to search for tag names. The tag names of all the modules with tag names located within this area are listed for selection and display.



The values in the four text boxes are AutroOs logical co-ordinates.

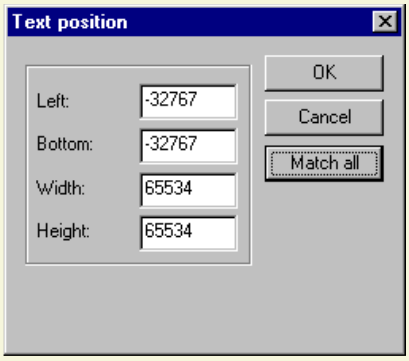
Left	The search area bottom left corner's x-coordinate.
Bottom	The search area bottom left corner's y-coordinate.
Width	The width of the search area.
Height	The height of the search area.

The **Match all** button resets the search area logical co-ordinate values to comprise the entire AutroOs, as shown in the figure above.

11.5.21 Text position dialog box

Text position dialog box

This dialog box lets you specify the area in which to search for module text objects. The tag names of all the modules with text objects located within this area are listed for selection and display.



The values in the four text boxes are AutroOs world map logical co-ordinates.

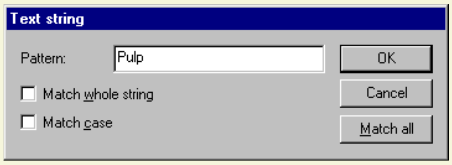
Left	The search area bottom left corner's x-coordinate.
Bottom	The search area bottom left corner's y-coordinate.
Width	The width of the search area.
Height	The height of the search area.

The **Match all** button resets the search area logical co-ordinate values to comprise the entire AutroOs world map, as shown in the figure above.

11.5.22 Text string dialog box

Text string dialog box

This dialog box lets you specify the text string (text object) of the module you want to search for.



The **Pattern** text box lets you type in the whole, or part of, the text object(s) to search for.

The **Match whole string** option is selected when you have typed in the whole text of a specific text object and only want to search for this text object.
The **Match case** option is selected when you want to make the filtering case sensitive.

The **Match all** button can be used to clear all other search specifications of this dialog box. If a search is initialized using only this setting, all modules will be found.

11.6 Process Images

11.6.1 Process Image dialog box

Process Image dialog box

This dialog box is used to name Process images and select Process images model files for implementation into the current AutroOs configuration.

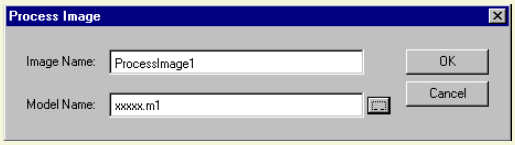


Image Name text box
Type in the name you want to give to the Process image you are about to implement into your AutroOs configuration. You can also rename existing Process images here.

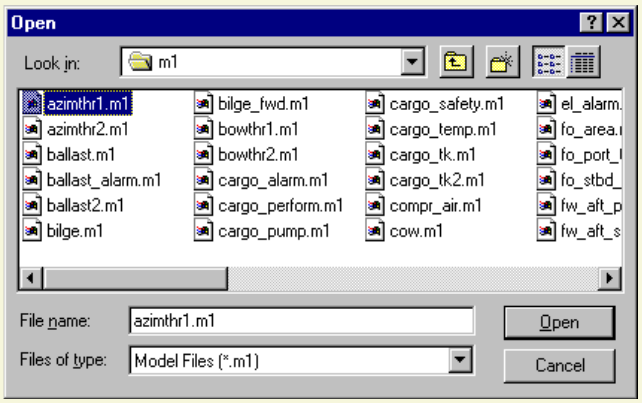
Model Name text box
If you know the name and path of the .m1 Process image model file to be implemented into your AutroOs configuration, type it in here. If not, use the ellipsis points button (see below) to the right hand side of this text box.

Ellipsis point (...) button
Click this button to find the .m1 Process image model file to be implemented into your AutroOs configuration. (The Windows NT Open dialog box is displayed.)

11.6.2 Open dialog box

Open dialog box

This dialog box is used to select Process image model files for implementation into the current AutroOs configuration. This is a standard Windows NT **Open** dialog box.



File Name text box
The name of the Process image model file with the model file extension shall be displayed/typed in here.

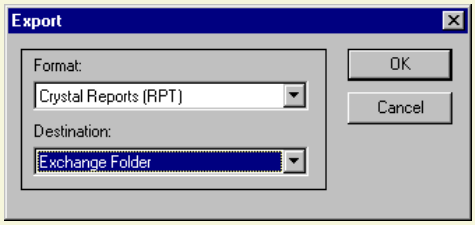
Files of type drop-down text box
Use the list contained in this drop-down text box to select model file type with file extension.

11.7 Report System

11.7.1 Export dialog box

Export dialog box

This dialog box lets you export a report by selecting the destination.

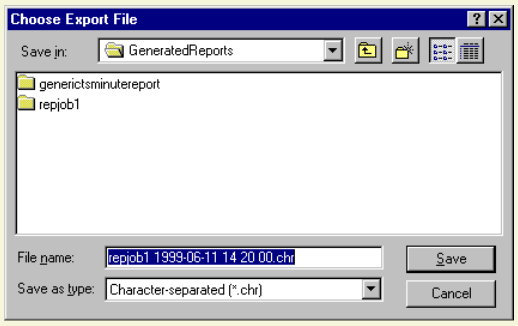


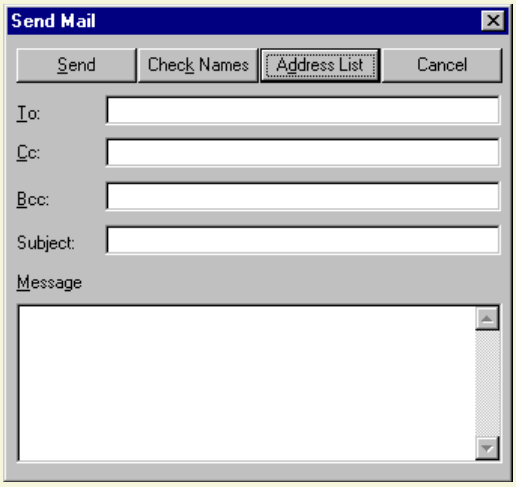
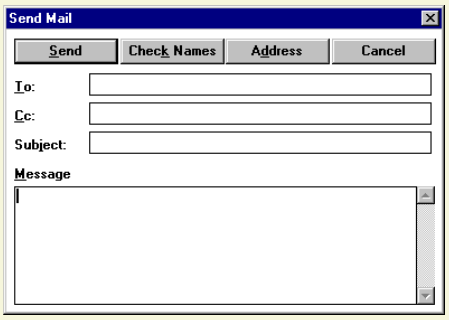
Format

AutroOS reports can be exported to a large range of formats, listed in the drop down list box. Dependent on the format you select, you may be prompted for optional information that is inherent to the selected format. Further description of the additional input request is beyond the scope of this topic.

Destination

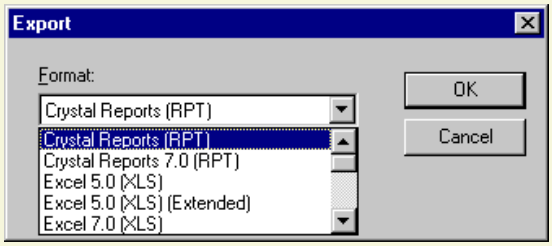
There are several alternative destinations for the exported report file. Further dialog depend on what destination is selected.

Disk file	Launches the standard windows dialog for saving files. The **Save in** folder is automatically set to the directory that is defined in the Generated report base path. You can however navigate to any path that can be reached from the AutroOS. 
Exchange folder	Launches the standard MS Exchange dialog for saving within 'Personal Folders'.
Lotus cc:Mail (VIM)	Launches a dialog that let you specify the recipients subjects and message text for sending a Notes mail message. Proprietary address list and name verification functions are available. The report is automatically added to the message

	 This destination requires access to a Lotus Notes mail account.
Lotus Notes Database	Launches a dialog for storing data in a Lotus Notes database. The let you specify an available Notes server, existing database and filename.
Microsoft Mail (MAPI)	Launches a dialog that let you specify the recipients subjects and message text for sending a Microsoft mail message. Proprietary address list and name verification functions are available. The report is automatically added to the message.  This destination requires access to a Microsoft Exchange or Microsoft Outlook mail account.

11.7.2 File Output Description dialog box

File Output Description dialog box



File name

The name you enter in the text box is used as the root for the file names of the generated reports produced by the current report job. The report system appends the date and time of generation to this file name root in order to distinguish between the reports generated by the same report job.

File format

The default storage format for generated reports is the Crystal Reports .rpt format. However, selecting any of the other formats, available from the list box, makes the report system export the .rpt format to the selected format.

Destination path

The default destination path is defined by the Report Manager configuration setting **Generated report base path**.

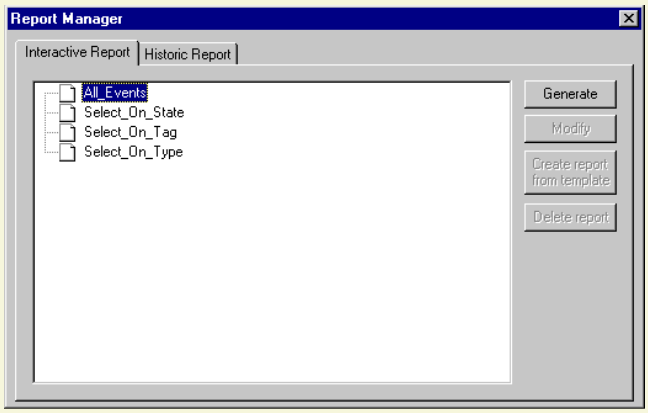
The ... button launches a drive and directory explorer dialog box that let you specify any path that can be reached from the OS.

Restrict number of files with this name

Use the leading check box to enable or disable storage restrictions. The Max number of files can be set to any value between 1 and 1000. If storage restrictions are enabled, only the most recent <N> generated reports are saved.

11.7.3 Interactive Report page

Interactive Report page



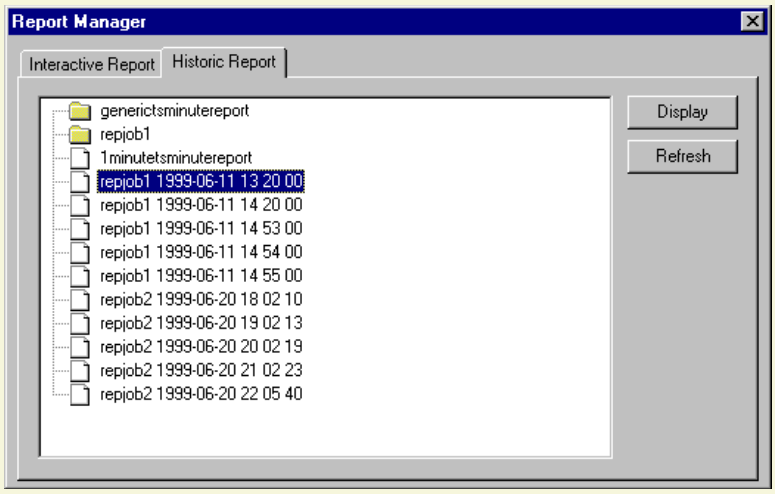
The **Interactive Report** page is a page in the **Report Manager** dialog and requires the OS configuration mode.

From this page you can browse all prepared reports that are stored along the path defined in the **Prepared report base path** text box of the **Configure Report Manager** dialog box.

The **Generate** button becomes available whenever a prepared report is selected. Selecting the button, initiates report generation. Many AutroOS reports require date and time values to be specified by the user. These reports prompt you to enter values for the report parameters. The report output is displayed in the report window.

11.7.4 Historic Report page

Historic Report page



The **Historic Report** page is a page in the **Report Manager** dialog box and requires the OS configuration mode.

From this page you can browse through all reports that are stored along the path defined in the **Generated report base path** field of the **Configure Report Manager** dialog box.

Refresh

The **Refresh** button refreshes the list of generated reports.

Display

The **Display** button becomes available whenever a generated report is selected. Selecting the button, initiates report generation. Many AutroOS reports require date and time values to be specified by the user. These reports prompt you to enter values for the report parameters. The report output is displayed in the report window.

11.7.5 OS Configuration > Report System... command

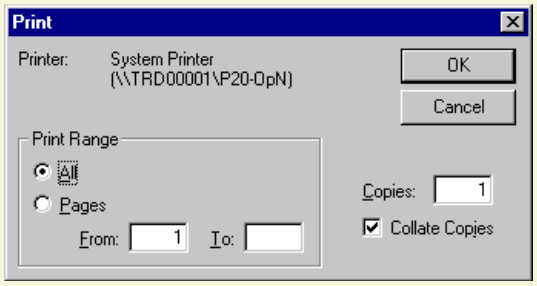
OS Configuration > Report System... command

The **OS Configuration** command is a command in the **System** menu. It is available when the **OS Configuration Mode** command, in the same menu, is selected.

The **Report System...** command is an command in the cascading menu for the **OS Configuration** option. Selecting this option launches the **Configure Report Manager** dialog box.

11.7.6 Print Output Description dialog box

Print Output Description dialog box



Printer Range:

Select the pages of the report you want to print.

No of copies:

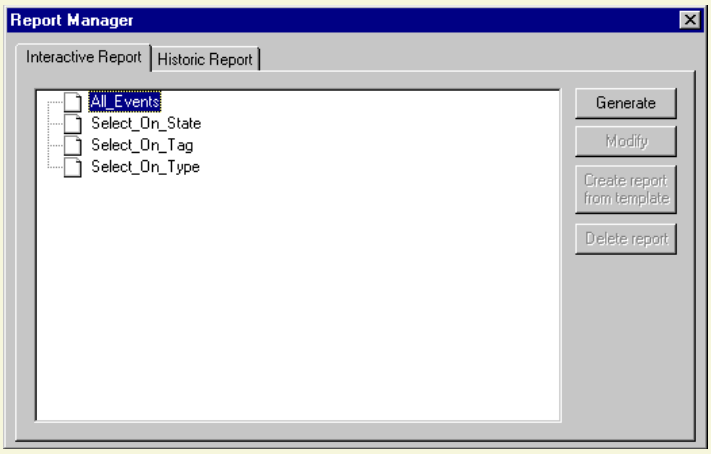
Enter the number of copies

11.7.7 Report Manager dialog box

Report Manager dialog box

This dialog box is the main user interface for report generation and management. Two tabs give access to specific functions for:

- interactive report selection and generation
- management of stored (historical) reports



See also

- **Interactive Report tab**
- **Historic Report tab**

11.7.8 Report System... command

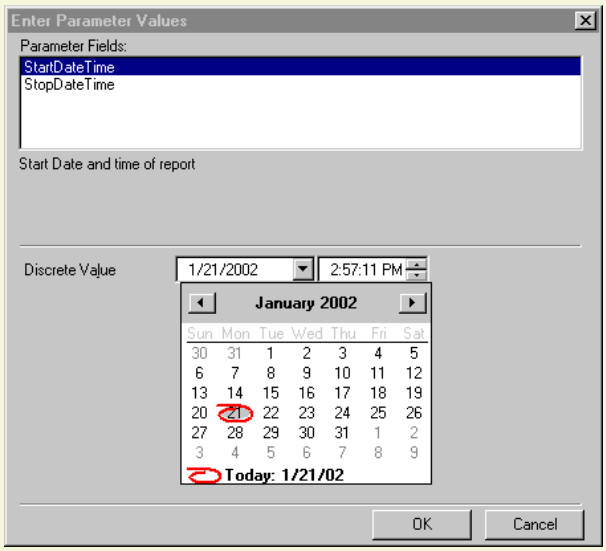
Report System... command

Successive selection of this command, opens and closes the **Report Manager** dialog box.
The command is checked in the menu, whenever the dialog is displayed.

11.7.9 Select time periode for the report dialogue box.

Select time periode for the report dialogue box.

This dialog box is the selecting time periode for the report.
The StartSateTime and StopDateTime are common for all reports.
The third parameter is unique, based on which type of report is selected.

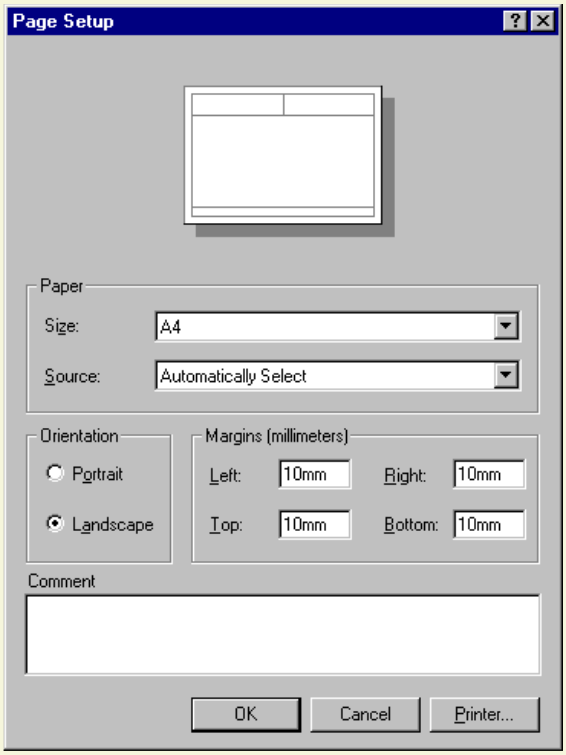


11.8 Trend System

11.8.1 AutroOs Page Setup dialog box

AutroOs Page Setup dialog box

This dialog box lets you specify the print-out for a paper copy of the image currently displayed in the main view area.



The **Paper, Orientation** and **Margins** group boxes allow you to select and specify the standard output choices and parameters.

The **Comment** text box allows you to type in comments that will be printed in the upper right box, which is located as shown on the dialog box above.

11.8.2 Axis Controls command

Axis Controls command

This command lets you toggle the trend axis controls on and off.

Method
Launch the trend context menu in the correct trend and toggle the **Axis Controls** command on.
The axis control scroll bars are now displayed.
The **Axis Controls** command in the context menu is checked.

11.8.3 Cut, Copy and Paste Curve commands

Cut, Copy and Paste Curve commands

The **Cut Curve**, **Copy Curve** and **Paste Curve** commands allow you to cut, copy and paste the trend curves in and between trend panes (see Copying, deleting and moving trend curves). **Paste Curve** only becomes available after a trend curve has been cut or copied using the **Cut Curve** and **Copy Curve** commands.

Method
Put the correct trend curve in focus for cutting or copying.
Launch the trend context menu.
Then use these commands as applicable.

11.8.4 Layout Mode command

Layout Mode command

The Layout Mode allows you to resize and collapse trend panes.
The mode is toggled on and off by the **Layout Mode** command in the the **File** menu. When this command is checked, Layout Mode is selected.
When this mode is toggled on, two commands - **Split Horizontally** and **Split Vertically** - are added uppermost on the trend context menu.
The resizing of the panes are controlled by using the cursor, which appears with a specific shape when this mode is toggled on.

Method
Use this command the following ways:
To split a trend pane horizontally, choose the **Split Horizontally** and use the cursor to define the border between the new panes.
To split a trend pane vertically, choose the **Split Vertically** and use the cursor to define the border between the new panes.
To delete a trend pane, move the border until it merges with the opposite border of the pane.
To freeze the trend image layout, toggle the **Layout Mode** off.

11.8.5 Make Popup command

Make Popup command

The **Make Popup** command lets you create a Trend Popup of the selected trend.

Method
Open a Trend Image.
Launch the context menu for the desired trend and click **Make Popup**.
The trend popup window is launched containing the selected trend.

11.8.6 MinMeanMax command

MinMeanMax command

This command lets you toggle on and off the display of minimum, mean and maximum values for a trend curve in focus.
The function is only available for Time Trends.

Method
Launch the trend context menu in the desired trend and toggle the **MinMeanMax** command on.
The **MinMeanMax** command in the context menu is checked.
The minimum, mean and maximum values for the trend curve in focus are shown in the trend as both horizontal lines and numerical values.

11.8.7 New Curve... command

New Curve... command

The **New Curve...** command allows you to create new trend curves..

Method
Launch the trend context menu in the desired trend.
If the trend is empty, define an axis system.
Create a new curve.

11.8.8 Print... command

Print... command

The **Print**... command allows you to print out a copy of a trend on a printer.

Note: The **Print Image...** command in the **File** meny can be used to print the entire Trend Image.

Method
Launch the trend context menu in the desired trend and click **Print...**.
The **AutroOs Page Setup** dialog box is displayed. Specify your print-out preferences by using the options provided in this dialog box.

11.8.9 Properties... command

Properties... command

The **Properties...** command allows you to display the property dialog boxes for the selected trend.

Method
Launch the context menu for the selected trend and click **Properties...**.
The property dialog box for the actual trend type is displayed. Use the options of the tabs to edit the trend as applicable.

11.8.10 Static command

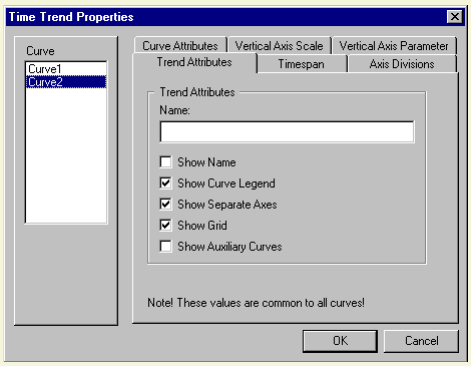
Static command

The **Static** command allows you to toggle between dynamic and static mode.
When static mode is selected:
The updating of the trend curve(s) is frozen.
The label "Static Presentation" is printed across the trend background
For XY Trends, the currently selected time scale is displayed above the trend curve.

Method
Launch the context menu for the desired trend and click **Static** to toggle between static and dynamic mode. When this command is checked, static mode is selected.

11.8.11 Time Trend Properties dialog box

Time Trend Properties dialog box

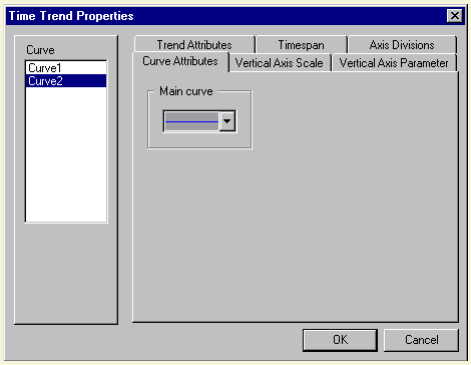


This dialog box is divided into two parts. At the left side of the dialog box is a list of the curves that are available in the trend. The highlighted (selected) curve within this list is the one to which the settings on the tabs at the right of the dialog box are applied.
Note ! Some tabs affect all trend curves. Where applicable, this is written across the bottom of the tab.

The dialog box is launched by the **Properties... command.**

For more information on the tabs, see the following links:
Curve Attributes tab
Vertical Axis Scale tab
Vertical Axis Parameter tab
Trend Attributes tab
Timespan tab
Axis Divisions tab

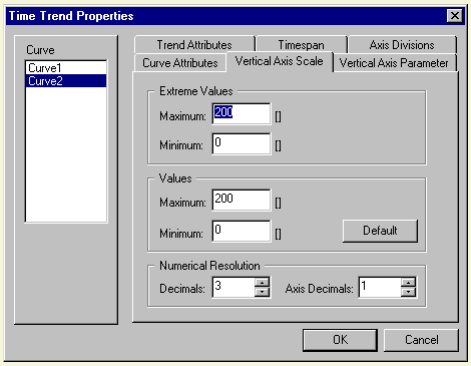
Curve Attributes tab
The **Curve Attributes** tab allows you to define the colour for each curve in the trend.



The **Main curve** drop-down list box allow you to select the colour for the selected trend curve.

Vertical Axis Scale tab

The **Vertical Axis Scale** tab allows you to set the maximum and minimum values of the value axis scale.



The **Maximum** and **Minimum** text boxes in the **Extreme Values** group box allow you to define the upper and lower limits for the process value connected to the selected trend curve. Normally these values will be set to the measurement limits of the instrument monitoring the process value.

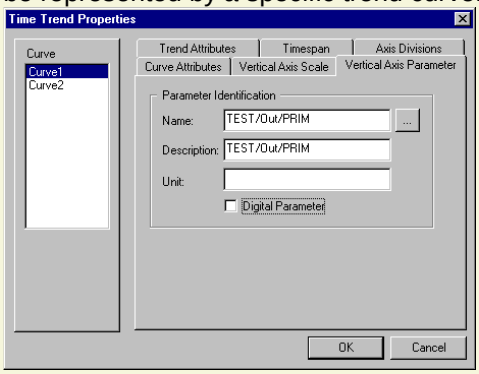
The **Maximum** and **Minimum** values in the **Values** group box are used to the set the maximum and minimum values displayed on the value axis scale of the selected trend curve.

The **Default** button allows you to revert back to the maximum and minimum values set when the trend was last saved.

The **Decimals** and **Axis Decimals** spin boxes in the **Numerical Resolution** group box allows you to define the number of decimal places for the values displayed on the value axis scale and in the curve legend. These boxes are not available for digital parameters.

Vertical Axis Parameter tab

The **Vertical Axis Parameter** tab allows you to define which process value is to be represented by a specific trend curve.



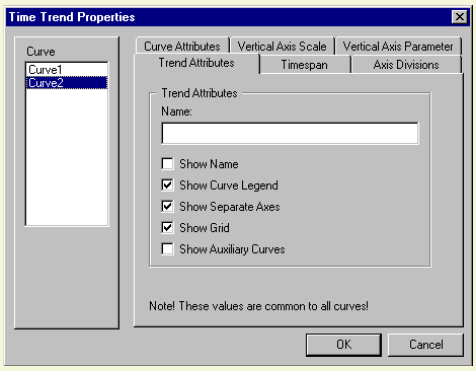
The **Name** text box allows you to enter or change the name of the time series that is to be connected to the selected trend curve. The ellipsis points (**...**) button allows you to define the connected time series by using the **Browse Modules** and the **AutroOS Time Series Browser**.

The **Description** text box allows you to enter a description of the connected time series that will be displayed in the curve legend for the selected curve. As default, this description is the same as the name of the connected time series.

The **Unit** text box allows you to enter a measurement unit text for the connected times series that will be displayed in the trend view for the selected curve.

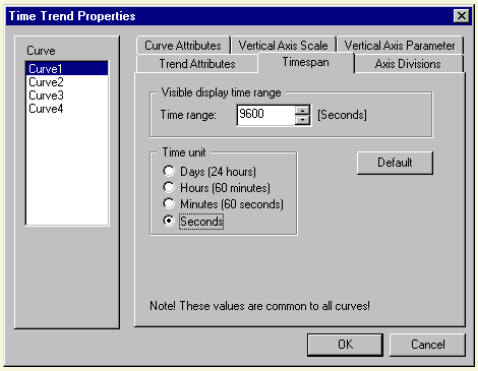
If the selected time series is digital, then the **Digital Parameter** check box should be selected.

Trend Attributes
The **Trend Attributes** tab allows you to define some trend layout attributes.

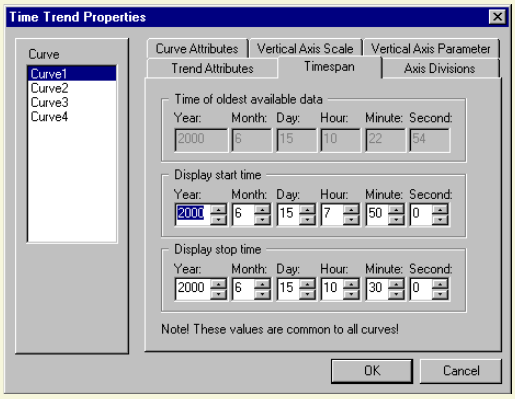


The **Name** text box allows you to define a trend name.
The **Show Name** check box, when selected, causes the trend name to be displayed in the trend view.
The **Show Separate Axes** check box, when selected, causes separate scales to be displayed for each trend curve.
The **Show Grid** check box, when selected, causes grid lines to be displayed in the trend.
The **Show Auxiliary Curves** check box, when selected, enables the display of auxiliary curves. For a Time Trend, these are horizontal alarm limit lines.

Timespan tab
The **Timespan** tab allows you to specify the time span for the trend (effectively the X-axis).
If a *dynamic presentation* is selected, clicking this tab displays the settings shown in the following figure:

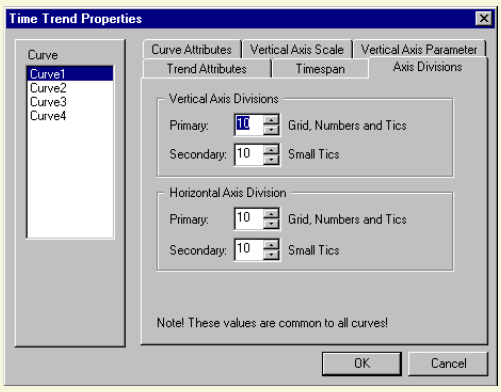


The **Time range** spin box allows you to set the time scale for the trend in multiples of the time unit selected by the **Time unit** option buttons.
The **Default** button allows you to revert back to the time span set when the trend was last saved.
If a *static presentation* is selected, clicking this tab displays the settings shown in the following figure:



The text boxes in the **Time of oldest available data** group box show the date and time of the first stored value for the trend.
The spin boxes in the **Display start time** and **Display stop time** group boxes allow you to set the start and stop times for the trend. These perform the same function as the plus (**+**) and minus (**-**) buttons at the end of the time-axis scroll bar (see Time-axis scroll bar).

Axis Divisions tab
The **Axis Divisions** tab allows you to set the spacing of major and minor divisions on the horizontal and vertical scales. Clicking this tab displays the settings shown in the following figure:

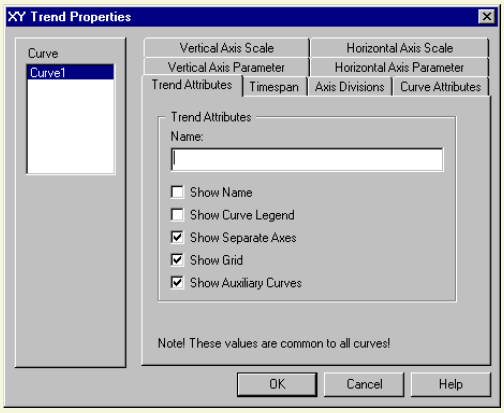


The value you specify in the two sets of **Primary** and **Secondary** spin boxes represents the number of divisions that will appear in the scales of the trend's vertical and horizontal axes.
For example, specifying five (5) primary and ten (10) secondary axis divisions will display a scale with five main divisions each containing ten sub-divisions, provided that there is sufficient space on the displayed trend scale.
Note: When zooming and panning a trend the horizontal axis division will be automatically adapted to the time span of the displayed trend.

See also
XY Trend Properties dialog box.

11.8.12 XY Trend Properties dialog box

XY Trend Properties dialog box



No security object is required. No configuration mode is required.
Note that this is a modal dialog. I.e. Apart from the current dialog, any input to the OS is inhibited.

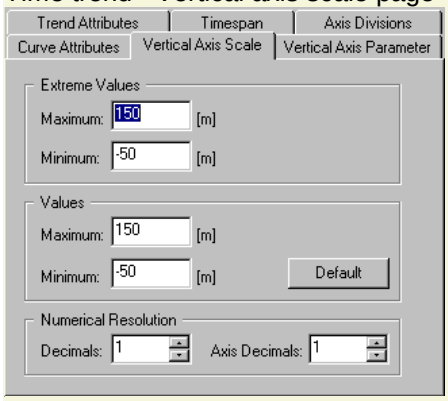
The **XY Trend Properties dialog box** is a container for the time trend property pages. It comprises the **Curve** list box which let you specify a single curve at the time among the defined curves.
It contains the following pages:
Vertical Axis Scale
Horizontal Axis Scale
Vertical Axis Parameter
Horizontal Axis Parameter
Trend Attributes
Timespan: note that the content of this page depends on the selected presentation: dynamic or static.
Axis Division
Curve Attributes

11.8.13 Axis Scale page

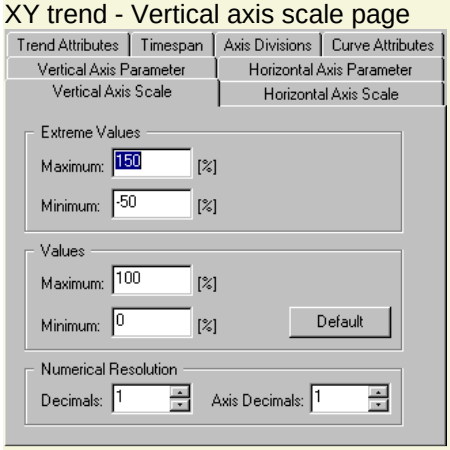
Axis Scale page

The axis scale page is applicable in the following context:

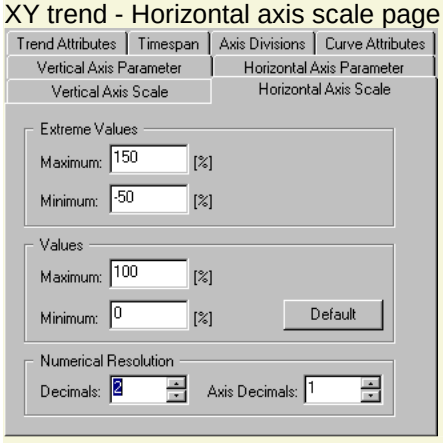
Time trend - Vertical axis scale page



XY trend - Vertical axis scale page



XY trend - Horizontal axis scale page



No user rights are required. No configuration mode is required.
Note that this page is part of a modal dialog. I.e. Apart from the current dialog, any input to the OS is inhibited.

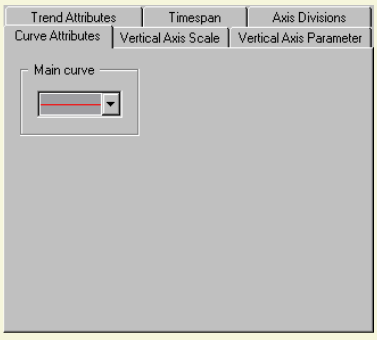
Extreme Values
the **Extreme Values** group box expresses the limits for the process value connected to the selected trend curve. I.e. the total range that can be represented by the axis. Normally these values equal the measurement limits of the instrument monitoring the process value.
The **Maximum** text box represents the upper limit.
The **Minimum** text box represents the upper limit.
The **[Unit]** is set to the measurement unit associated with the process value in question.

Values
the **Values** group box expresses the maximum and minimum values displayed on the value axis scale of the selected trend curve. I.e. the amount that is displayed by the axis. These values must be within the specified extreme values.
The **Maximum** text box represents the upper limit.
The **Minimum** text box represents the upper limit.
The **[Unit]** is set to the measurement unit associated with the process value in question.
The **Default** button revert the maximum and minimum values to the saved values.

Numerical Resolution
The **Decimals** and **Axis Decimals** spin boxes in the **Numerical Resolution** group box allows you to define the number of decimal places for the values displayed on the value axis scale and in the curve legend. These boxes are not available for digital parameters.
Take care to specify a numeric resolution for the axis decimals that harmonizes with the axis division definition.

11.8.14 Curve Attributes page - time trends

Curve Attributes page - time trends



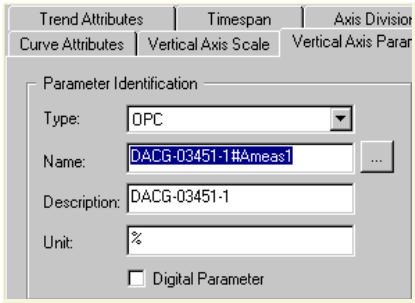
No user rights are required. No configuration mode is required.
Note that this page is part of a modal dialog. I.e. Apart from the current dialog, any input to the OS is inhibited.

Main curve
The **Main curve** drop-down list box allow you to select the colour for the selected trend curve.

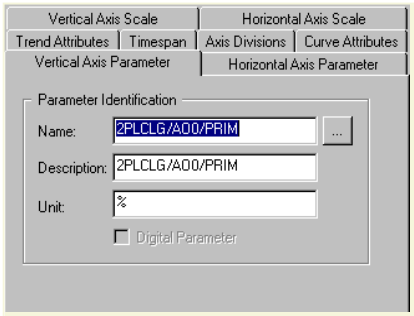
11.8.15 Axis parameter page

Axis parameter page

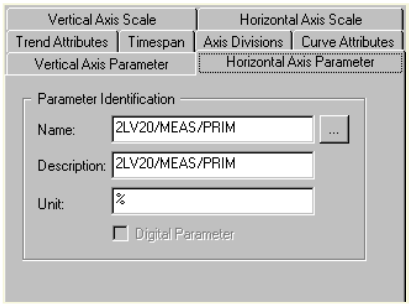
The axis parameter page is relevant in the following context:



Time trend properties - Vertical axis parameter page



XY trend properties - Vertical axis parameter page



XY trend properties - Horizontal axis parameter page

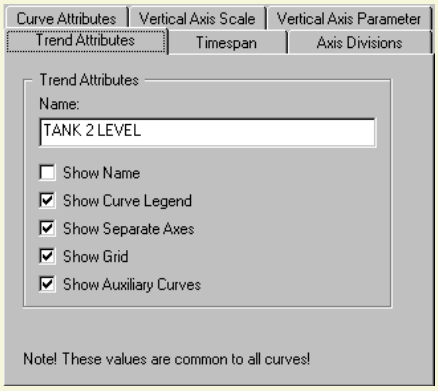
No user rights are required. No configuration mode is required.
Note that this page is part of a modal dialog. I.e. Apart from the current dialog, any input to the OS is inhibited.

Parameter Identification
The page comprises of the **Parameter Identification** group box.

The **Name** text box specifies the name of the variable or time series that is to be connected to the selected trend curve.
The **Description** text box allows you to enter a description of the connected time series that will be displayed in the curve legend for the selected curve. By default, this description is the same as the name of the connected time series.
The **Unit** text box specifies the applicable unit for the variable in question. The text box is unavailable whenever the **Digital Parameter** check box is checked.
The **Digital Parameter** check box is automatically checked for digital variables.

11.8.16 Trend Attributes dialog box

Trend Attributes dialog box



No user rights are required. No configuration mode is required.
Note that this page is part of a modal dialog. I.e. Apart from the current dialog, any input to the OS is inhibited.

Note! These values are common to all curves!

Name:
The **Name** text box specifies the user defined name for the trend.

Show Name
The **Show Name** check box, when selected, causes the trend name to be displayed in the trend.

Show Curve Legend
The **Show Curve Legend** check box, when selected, causes the curve legend to be displayed for each trend curve.

Show Separate Axes
The **Show Separate Axes** check box, when selected, causes separate scales to be displayed for each trend curve.

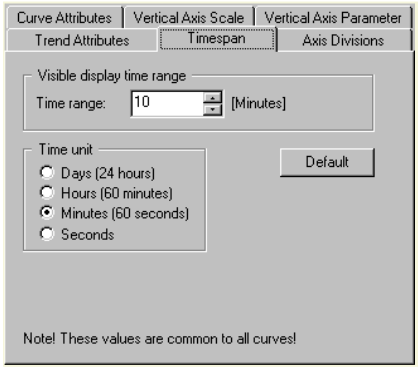
Show Grid
The **Show Grid** check box, when selected, causes grid lines to be displayed in the trend.

Show Auxiliary Curves
The **Show Auxiliary Curves** check box, when selected, enables the display of auxiliary curves. For a Time Trend, these are horizontal alarm limit lines.

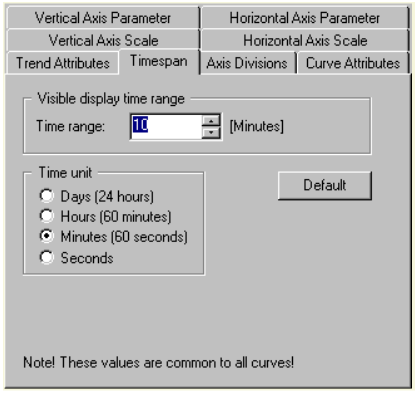
11.8.17 Dynamic Time Span page

Dynamic Time Span page

The dynamic time span page is applicable in the following context:



Time trend - Timespan page for dynamic presentation



XY trend - Timespan page for dynamic presentation

No user rights are required. No configuration mode is required.
Note that this page is part of a modal dialog. I.e. Apart from the current dialog, any input to the OS is inhibited.

Note! These values are common to all curves!

The page contains two group boxes and the **Default** button.
The **Visible display time range** group is where you specify the time range.
The **Time unit** group is where you specify the applicable unit for the time range.
The **Default** button acts as a reset function.

Visible display time range
It is recommended to specify the time unit before entering the time range value. If not, changing the unit may round off the specified time range to the previous whole number.
The **Time range:** spin box displays the numerical value of the time range. The applicable time unit is specified in quotes to indicate that you can change the unit.

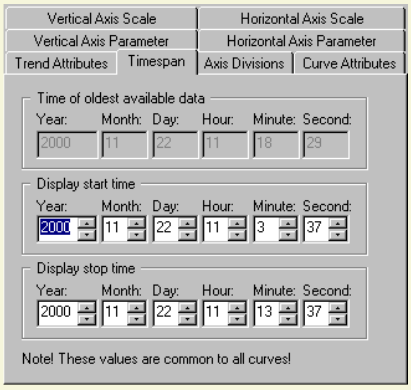
Time unit
The selection made in the **Time unit** option group determines which time unit is applicable for the time range.
Selecting another time unit initiates recalculation of the time range value. This implies that the value is rounded off to the previous whole number if you change to a larger unit. However, if the current value is less than 1 in the larger unit, the initial value is preserved when reverting to the initial unit.

Default
Clicking the **Default** button reverts the range value and time unit to the latest saved settings.

11.8.18 Static TimeSpan Page

Static TimeSpan Page

The page is applicable for both time and XY-trends.


Vertical Axis Scale
Horizontal Axis Scale
Vertical Axis Parameter
Horizontal Axis Parameter
Trend Attributes
Timespan
Axis Divisions
Curve Attributes
Time of oldest available data
Year: Month: Day: Hour: Minute: Second:
2000 11 22 11 18 29
Display start time
Year: Month: Day: Hour: Minute: Second:
2000 11 22 11 3 37
Display stop time
Year: Month: Day: Hour: Minute: Second:
2000 11 22 11 13 37
Note! These values are common to all curves!

No user rights are required. No configuration mode is required.
Note that this page is part of a modal dialog. I.e. Apart from the current dialog, any input to the OS is inhibited.

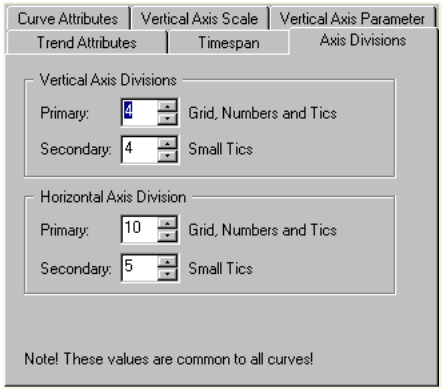
Note! These values are common to all curves!

The **Timespan** page specifies a static time span for a Time trend. It comprises three group boxes:
The **Display stop time** specifies the most recent limit of the static time span
The **Display start time** specifies the earliest limit of the time span
One option group informs you about the **Time of oldest available data**. Setting the start time to an earlier time, the presentation will not contain data.
Operate the spin boxes to set the display stop and start time.

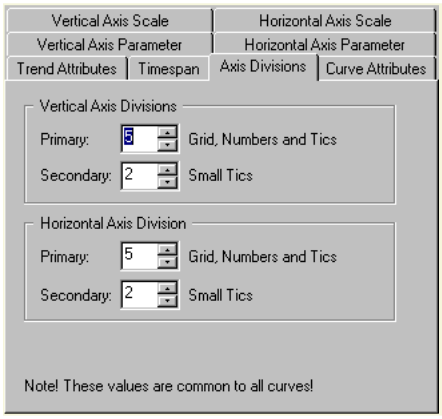
11.8.19 Axis divisions page

Axis divisions page

The page is applicable in the following context:



Time trend - Axis divisions page



XY-trend - Axis divisions page

No user rights are required. No configuration mode is required.
Note that this page is part of a modal dialog. I.e. Apart from the current dialog, any input to the OS is inhibited.

Note! These values are common to all curves!

Vertical Axis Divisions
The **Primary** spin box specifies in how many equal parts the displayed vertical axis is divided. The specified number defines implicitly the horizontal gridlines and major scale marks. Numeric scale values are calculated and associated with the respective scale marks. The values are recalculated upon zooming or panning.

Note that the decimal resolution may cause some scale values to be rounded off.

The **Secondary** spin box specifies in how many equal parts each major division is divided. Appropriate minor scale marks are inserted accordingly. There are no numeric scale values assigned to the minor division marks. The minor tics are automatically suppressed as the tics becomes to dense.

Horizontal Axis Divisions
The interface for specification of the horizontal axis division is identical in time trends and xy-trends. The behavior, however, is different:

In xy-trends the horizontal axis division behaves similar to the vertical axis division. I.e. The number of divisions is constant while the scale values are recalculated upon zooming and panning.

In time trends the number of divisions differs according to a 'best fit' calculation performed by the system. I.e. the systme divides the axis according to the number of primary and secondary divisions that you enter in the dialog. However, whenever you zoom, the time axis calculations may overwrite your specification.

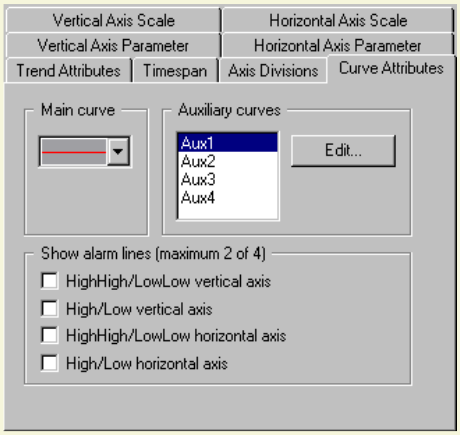
The **Primary** spin box specifies in how many equal parts the displayed horizontal axis is divided. The specified number defines implicitly the horizontal gridlines and major scale marks. Numeric scale values are calculated and associated with the respective scale marks. The values are recalculated upon zooming or panning.

Note that the decimal resolution may cause some scale values to be rounded off.

The **Secondary** spin box specifies in how many equal parts each major division is divided. Appropriate minor scale marks are inserted accordingly. There are no numeric scale values assigned to the minor division marks. The minor tics are automatically suppressed as the tics becomes to dense.

11.8.20 Curve attributes page - XY trends

Curve attributes page - XY trends



No security object is required. No configuration mode is required.
Note that this is page is part of a modal dialog. I.e. Apart from the current dialog, any input to the OS is inhibited.

Main curve
The **Main curve** drop-down list box allows you to select the colour for the selected trend curve.

Auxiliary curves
The **Auxiliary curves** group box contains a list box and an **Edit** button.
The list box lists the available auxiliary curves. The **Edit** button launches a dialog box for specification of an auxiliary curve.

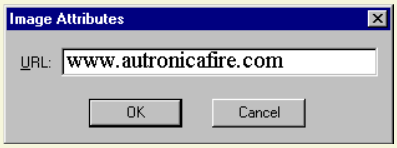
Show alarm lines (maximum 2 of 4)
This group box collects check boxes for each pair of alarm lines along both axes:
HighHigh/LowLow vertical axis
High/Low vertical axis
HighHigh/LowLow horizontal axis
High/Low horizontal axis
You can check up to two check boxes in any combination. As you check the second one, the remaining unchecked boxes become unavailable.

11.9 Web Images

11.9.1 Image Attributes dialog box

Image Attributes dialog box

This dialog box lets you enter the URL address of the web site you want to be displayed in the web image.



URL
Type in the URL address of the appropriate web site in this text box.
In an existing web image, you can type in another URL address, thus temporarily changing the web site displayed in this web image. The new web site is displayed instantly. However, next time you select the web image using the navigator, the original web site is again displayed.

11.9.2 Image Properties... command

Image Properties... command

This command lets you view and edit the URL address of the displayed Web image.

11.9.3 Next command

Next command

This command displays the next page contained in the historical list for the web site, which is contained in the displayed web image. Note that this command button is not disabled, when there are no more pages in the historical list for the web site.

This command button is located on the Web image specific toolbar.

11.9.4 Previous command

Previous command
This command displays the previous page contained in the historical list for the web site, which is contained in the displayed web image. Note that this command button is not disabled, when there are no more pages in the historical list for the web site.
This command is contained on the Web image specific toolbar.

11.9.5 Refresh command

Refresh command
This command refreshes the contents of the currently displayed web page.
This command is available on the Web image specific toolbar.

11.9.6 Stop command

Stop command
This command stops the processing related to the web image currently displayed.
This command is available on the Web image specific toolbar.

12. Glossary

Terms	Description
AutroOs	Monitoring and Control System
AutroOs configuration	The set of files that define an AutroOs delivery system.
AutroSafe	Interactive Fire Alarm System.
Alarm filter	A mechanism that makes it possible to extract a subset of alarms. Each alarm filter specifies a set of alarm attributes. Only alarms that match all specified attributes pass the filter.
DbServer	A Database Server that interfaces data between AutroOs stations and AutroSafe units.
CCTV	Closed Curcuit Tele Vision
Configuration mode	This mode is used to configure and edit the AutroOs configuration.
Daylight saving time	Normally used during the summer, In Europe often named summer time. In central Europe this time is UTC + 2 hours.
DDE	Dynamic Data Exchange - DDE is a Windows standard for data exchange. AutroOs uses DDE for subscription to terminal values from AutroSafe.
Display range	The display range is a range of flowsheet visibility levels that are used to control the detail level of Flow images.
DSN	Data Source Name - DSN are used to define the ODBC compatible data sources to be interfaced with an application program.
Event filter	A mechanism that makes it possible to extract a subset of events. Each event filter specifies a set of event attributes. Only events that match all specified attributes pass the filter.
Flexi module	The AutroOs Flexi-module is a programmable AutroOs function module. Flexi-modules behave like other modules in the AutroSafe, except that their algorithm must be configured by combining logic and arithmetic elements in a dedicated graphic editor.
Hotspot	A hotspot is an image navigation link.
HS	History Station - A station responsible for long term storage of time series.
LAN	Local Area Network
local_time_	The current time used at a location. During the winter local time equals standard time. During the summer local time equals Daylight Saving Time. Note that the offset between Local time and UTC time is not constant, it varies in locations where Daylight Saving Time is used.
LOGVAR	An AutroOs specific datatype applicable for module parameters. The datatype denotes that the module parameter is a 'logable variable'. I.e. the parameter can act as data source for AutroOs time-series.
Main view area	The main work area is the part of the OS window used o display images.
MAPI	Messaging Application Programming Interface - a Windows interface for mail messages.
Message Manager	The Message Manager is an OS tool used to handle system and process messages.
Module	Function modules are the basic building blocks in AutroOs AutroSafe configurations. Modules are self-contained automation objects that represent field devices, process functions or system specific functions.
Module parameter	The module parameters are a set of variables used to define the

Terms	Description
	characteristics and behaviour of the module.
Module terminal	Module terminals are communication channels towards other modules and IO channels. These connection points are used to transfer operational values between modules and between the module and the AutroOs environment.
MUM	Module User's Manual
ODBC	Open Database Connectivity - A standard for interfacing data sources with applications.
Operation mode	Operation mode is the mode used during normal process operation. System configuration is not allowed and the complexity of the user interface is reduced to a minimum to simplify operation.
OS	Operator Station - The station that provides the main user interface, enabling monitoring and control of the AutroOs system and the process controlled by the AutroOs system.
OS configuration mode	OS configuration mode is the OS mode that allows configuration of the operator station and its images.
OSHS	An OS that also incorporates HS functionality
OSK	Operator Station Kernel
process_alarm	A process alarm is a notification of an abnormal or unwanted process condition. Its purpose is to attract the attention of the operator to potential hazardous areas.
Process event	A process event is a notification of a condition change for recording purposes.
Scan task	The scan task is a cyclic AutroSafe task that runs the algorithms of a number fo function modules in a defined sequence.
User Rights	A user right represents a number of system operations. To be allowed to perform a given operation, the current user must have access to the relevant security object.
SID	Software Identifier. The version number of a given module type.
SL GMS	Sherill-Lubinski Graphical Modeling System. The graphic subsystem used in Process Images.
SQL	Structured Query Language - A language used in querying, updating and managing relational databases. SQL can be used retrieve, sort and filter specific data to be extractted from a database.
System alarm	A system alarm is a notification of an abnormal or unwanted system condition. Its purpose is to attract the attention of the operator to potential hazardous areas.
System event	A system event is a notification of a system condition for recording purposes.
Tag	An AutroOs tag identifies a specific instance of an AutroOs module that is configured on a specific AutroSafe within the AutroOs configuration. The tag is identified by an alphnumeric string - the tag name.
Tagmark	A tagmark indicates the state of the module to which it is connected.
Tagname	An AutroOs tag identifies a specific instance of an AutroOs module that is configured on a specific AutroSafe within the AutroOs configuration. The tag is identified by an alphnumeric string - the tag name.
Time series	A series of digital or analog values representing the development of process conditions over time.
TS	Time Series
UTC	Universal Time Coordinated - UTC is the standard time common to every

Terms	Description
	place in the world. Formerly called GMT and also World Time, UTC nominally reflects the mean solar time along the Earth's prime meridian. The prime meridian is arbitrarily based on the meridian that runs through the Greenwich Observatory. UTC is the basis for all time zones based on the Prime Meridian with longitude = 0 degrees.
Value display	A value display is a dynamic representation of a terminal value in a flow or process image. The terminal value can be represented numerically or graphically.

13. Reader's Comments

Please help us to improve the quality of our documentation by returning your comments on this manual:

Title: *Operator's Handbook,*
AutroOS Monitoring and Control System,

Ref. No.: *116-P-AUTROOS/FE 041124*

Your information on any inaccuracies or omissions (with page reference):

Please turn the page

Suggestions for improvements

Thank you! We will investigate your comments promptly.

Would you like a written reply? ❑ Yes ❑ No

Name: ----------

Title: ----------

Company: ----------

Address: ----------

Telephone: ----------

Fax: ----------

Date: ----------

Please send this form to:

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www.autronicafire.com/

Autronica Fire and Security AS is an international company, based in Trondheim, Norway and has a world-wide sales and service network. For more than 40 years Autronica's monitoring systems have been saving lives and preventing catastrophes on land and at sea. Autronica Fire and Security's most important business area is fire detection & security. Autronica Fire and Security stands for preservation of environment, life and property.

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Stringent control throughout Autronica Fire and Security assures the excellence of our products and services. Our quality system conforms to the Quality System Standard NS-EN ISO 9001, and is valid for the following product and service ranges: marketing, sales, design, development, manufacturing, installation and servicing of:

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- petrochemical, oil and gas instrumentation systems for monitoring and control

In the interest of product improvement, Autronica Fire and Security reserves the right to alter specifications according to current rules and regulations.

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Visit Autronica Fire and Security's Web site: http://www.autronicafire.com/